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82941

Susan Hanley

Access DB#

L3

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: My-Chan Tran Examiner #: 78933 Date: 12/23/02
 Art Unit: 1639 Phone Number 305-6999 Serial Number: 09/817,821
 Mail Box and Bldg/Room Location: CM1, 8416 Results Format Preferred (circle): PAPER DISK E-MAIL
63801

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Combinatorial Synthesis and Analysis of Metal Ligand Composition
 Inventors (please provide full names): Keith Hall; Vince Murphy; using soluble
Anne M. LaPointe; Johannes A. M. van Beek; Gary M. Diamond metal precursors
 Earliest Priority Filing Date: 3/24/00

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Mrs. Hanley,

Please perform the following searches:

- 1) Inventor search
- 2) Search together Claims 1, 6, 7, 8, 11, 12, & 39
- 3) Search Claim 73
- 4) Keywords searches: 1) Metal-ligand combinatorial synthesis
 2) Metal-ligand synthesis w/ metal precursors.

Point of Contact
 Susan Hanley
 Technical Info. Specialist
 CM1 6B05 Tel: 305-4053

Hanks

Inventor Search

TRAN 09/817,821

=> d his

(FILE 'HOME' ENTERED AT 08:12:20 ON 06 JAN 2003)

FILE 'HCAPLUS' ENTERED AT 08:12:29 ON 06 JAN 2003

L1 963 S HALL K?/AU
L2 152 S MURPHY V?/AU
L3 132 S DIAMOND G?/AU
E LA POINTE/AU
L4 2 S E4-E5
E VAN BEEK/AU
L5 82 S E75-76,E95-96,E99-103
L6 1296 S L1-5
L7 33760 S METAL(5A)LIGAND
L8 30 S L6 AND L7
L9 7843 S METAL-LIGAND
L10 9 S L8 AND L9

a citations
SELECT RN L10 1-9 selecting Reg #'s from 210 citations

FILE 'REGISTRY' ENTERED AT 08:18:18 ON 06 JAN 2003

L11 201 S E109-309
L12 33 S E310-342
L13 234 S L11-12

234 cpds from L10 cites

FILE 'HCAPLUS' ENTERED AT 08:19:30 ON 06 JAN 2003

L14 9 S L10 AND L13

9 citations of 234 compounds displayed

=> d ibib abs hitstr ind 1-9

L14 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:655013 HCAPLUS

DOCUMENT NUMBER: 137:201708

TITLE:

Combinatorial synthesis and screening of organometallic compounds as olefin polymerization catalysts

INVENTOR(S):

Weinberg, W. Henry; McFarland, Eric W.; Goldwasser, Isy; Bousisie, Thomas; Turner, Howard; Van Beek, Johannes A.; Murphy, Vance; Powers, Tim

PATENT ASSIGNEE(S):

Symyx Technologies, USA

U.S., 61 pp., Cont.-in-part of U. S. Ser. No. 127,660.

DOCUMENT TYPE:

CODEN: USXXAM

Patent

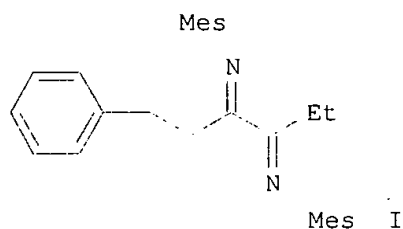
English

FAMILY ACC. NUM. COUNT: 20

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6440745	B1	20020827	US 1999-337048	19990621
US 5985356	A	19991116	US 1994-327513	19941018
EP 992281	A2	20000412	EP 1999-203888	19951018
EP 992281	A3	20000816		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
EP 1002572	A2	20000524	EP 1999-203886	19951018
EP 1002572	A3	20000920		
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EP 1002573	A3	20000816		
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US 6030917	A	20000229	US 1997-898715	19970722
JP 2002241319	A2	20020828	JP 2001-378679	19970722
JP 2002241387	A2	20020828	JP 2001-378680	19970722
JP 2002241388	A2	20020828	JP 2001-378681	19970722
US 6420179	B1	20020716	US 1998-127660	19980731
US 6248540	B1	20010619	US 1999-390001	19990903
US 2001033375	A1	20011025	US 2001-874758	20010605
US 2002119243	A1	20020829	US 2002-74745	20020211
US 2002197731	A1	20021226	US 2002-183306	20020625
PRIORITY APPLN. INFO.:				
US 1994-327513	A3		US 1994-327513	19941018
US 1996-16102P	P		US 1996-16102P	19960723
US 1996-28106P	P		US 1996-28106P	19961009
US 1996-29255P	P		US 1996-29255P	19961025
US 1997-35366P	P		US 1997-35366P	19970110
US 1997-48987P	P		US 1997-48987P	19970609
US 1997-898715	A3		US 1997-898715	19970722
US 1998-127660	A2		US 1998-127660	19980731
EP 1995-937472	A3		EP 1995-937472	19951018
US 1996-28105P	P		US 1996-28105P	19961009
US 1997-35202P	P		US 1997-35202P	19970110
US 1997-50949P	P		US 1997-50949P	19970613
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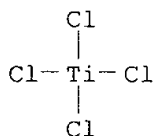
GI



AB Libraries of unsupported and supported **metal-ligand** compds., useful for homogeneous and heterogeneous olefin polymn. catalysts, resp., are manufd. by combinatorial synthesis. Thus, complexation of diimine I (Mes = mesityl) with (DME)NiBr₂ for 8 h in CH₂Cl₂ gave the corresponding Ni(I)Br₂ product, which catalyzes ethylene in the presence of MAO to give 2.10 g of polymer.

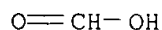
IT **7550-45-0P**, Tetrachlorotitanium, preparation
 RL: CAT (Catalyst use); CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (catalysts, nonsupported and polystyrene-supported; combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)

RN 7550-45-0 HCAPLUS
 CN Titanium chloride (TiCl₄) (T-4)- (9CI) (CA INDEX NAME)

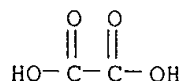


IT **64-18-6**, Formic acid, uses **144-62-7**, Oxalic acid, uses **7664-93-9**, Sulfuric acid, uses
 RL: CAT (Catalyst use); USES (Uses)
 (combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)

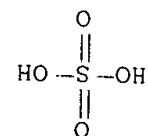
RN 64-18-6 HCAPLUS
 CN Formic acid (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 144-62-7 HCAPLUS
 CN Ethanedioic acid (9CI) (CA INDEX NAME)

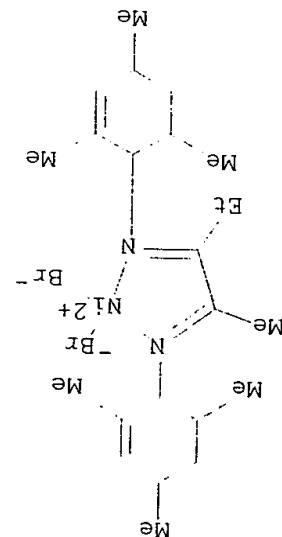


RN 7664-93-9 HCAPLUS
 CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)

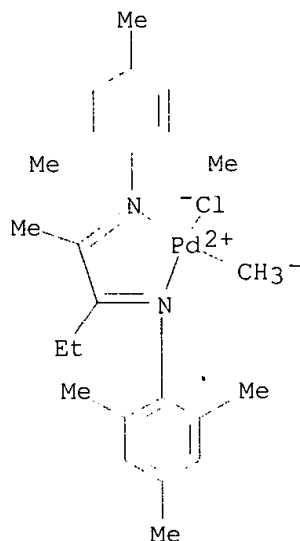


TRAN 09/817,821

IT 366001-62-9DP, polystyrene- and PEG-polystyrene-supported
 366001-63-0DP, polystyrene- and PEG-polystyrene-supported
 RL: CAT (Catalyst use); CPN (Combinatorial preparation); CMBI
 (Combinatorial study); PREP (Preparation); USES (Uses)
 (combinatorial synthesis and screening of organometallic compds. as
 olefin polymn. catalysts)
 RN 366001-62-9 HCAPLUS
 CN Nickel, dibromo[N,N'-(1-ethyl-2-methyl-1,2-ethanediylidene)bis[2,4,6-
 trimethylbenzenamine-.kappa.N]]- (9CI) (CA INDEX NAME)



RN 366001-63-0 HCAPLUS
 CN Palladium, chloro[N,N'-(1-ethyl-2-methyl-1,2-ethanediylidene)bis[2,4,6-
 trimethylbenzenamine-.kappa.N]]methyl- (9CI) (CA INDEX NAME)



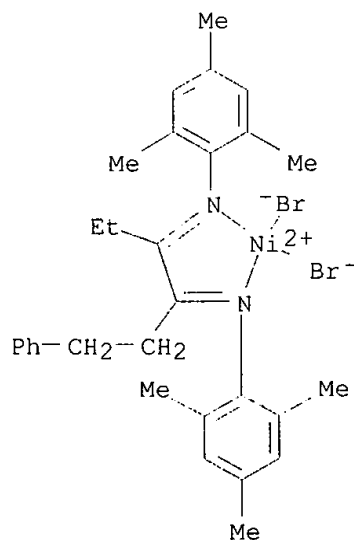
IT 202405-41-2P 202405-45-6P 270928-37-5P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)

(combinatorial synthesis and screening of organometallic compds. as
olefin polymn. catalysts)

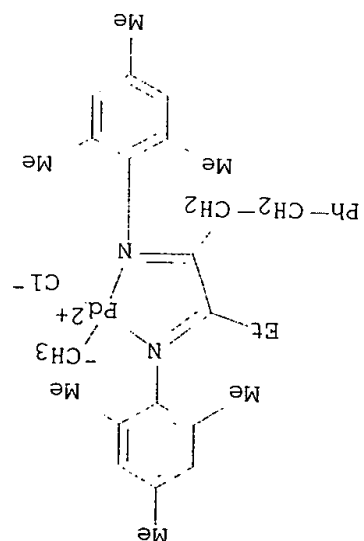
RN 202405-41-2 HCAPLUS

CN Nickel, dibromo[N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-
ethanediylidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]]- (9CI) (CA
INDEX NAME)

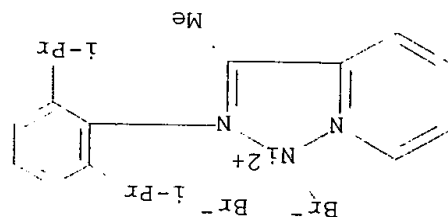


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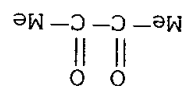
CN Palladium, chloro[N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-
ethanediylidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]]methyl- (9CI)
(CA INDEX NAME)



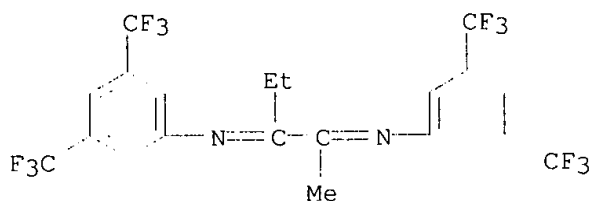
RN 270928-37-5 HCAPLUS
CN Nickel, [2,6-bis(1-methylethyl)-N-[1-(2-pyridinyl)-
kappa.N]ethyldiene]benzenamine-kappa.N[dibromo- (9CI) (CA INDEX NAME)



IT 431-03-8DP, 2,3-Butanedione, polystyrene- and PEG-polystyrene-
supported 366001-64-1DP, polystyrene-supported
RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP
(Preparation)
(combinatorial synthesis and screening of organometallic compds. as
olefin polymn. catalysts)
RN 431-03-8 HCAPLUS
CN 2,3-Butanedione (8CI, 9CI) (CA INDEX NAME)



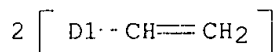
RN 366001-64-1 HCAPLUS
CN Benzenamine, N,N'-(1-ethyl-2-methyl-1,2-ethanediylidene)bis[3,5-
bis(trifluoromethyl)- (9CI) (CA INDEX NAME)



IT 9003-70-7DP, Styrene-divinylbenzene copolymer, bromomethylated, hydroxymethylated, and chlorosulfonated 202405-42-3DP, polystyrene- and PEG-polystyrene-supported
 RL: CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
 (combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
 RN 9003-70-7 HCAPLUS
 CN Benzene, diethenyl-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

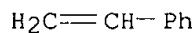
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CRN 1321-74-0
 CMF C10 H10
 CCI IDS

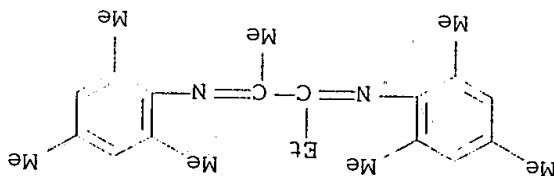


CM 2

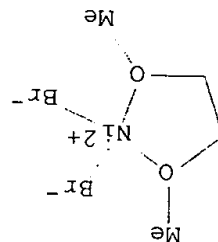
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 CMF C8 H8



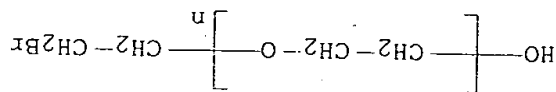
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 CN Benzenamine, N,N'-(1-ethyl-2-methyl-1,2-ethanediylidene)bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)



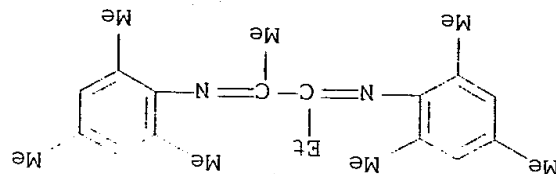
IT 9037-24-5, Amberlyst 15 28923-39-9, (1,2-Dimethoxyethane)nickel dibromide 73342-17-3D, polystyrene-supported 202405-42-3
 RL: CRT (Combinatorial reactant); RCT (Reactant) study); RACT (Reactant or reagent) (combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
 RN 9037-24-5 HCAPLUS
 CN Amberlyst 15 (9CI) (CA INDEX NAME)
 *** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 RN 28923-39-9 HCAPLUS
 CN Nickel, dibromo[1,2-di(methoxy-.kappa.O)ethane] - (9CI) (CA INDEX NAME)



RN 73342-17-3 HCAPLUS
 CN Poly(oxy-1,2-ethanediy1), .alpha.- (2-bromoethyl) -.omega.-hydroxy- (9CI) (CA INDEX NAME)



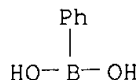
RN 202405-42-3 HCAPLUS
 CN Benzenamine, N,N'-(1-ethyl-2-methyl-1,2-ethanediy1idene)bis(2,4,6-trimethyl- (9CI) (CA INDEX NAME)



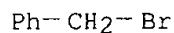
IT 98-80-6, Phenylboronic acid 100-39-0, Benzyl bromide 328-74-5, 3,5-Bis(trifluoromethyl)aniline 431-03-8,

2,3-Butanedione 626-05-1, 2,6-Dibromopyridine 24544-04-5
 , 2,6-Diisopropylaniline 54149-17-6, 1-(2-Bromoethoxy)-2-
 methoxyethane 63936-85-6, Chloro(1,5-
 cyclooctadiene)methylpalladium
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (combinatorial synthesis and screening of organometallic compds. as
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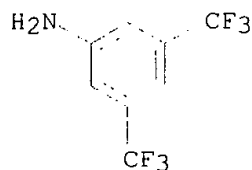
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 CN Boronic acid, phenyl- (9CI) (CA INDEX NAME)



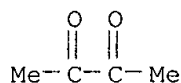
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 CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)



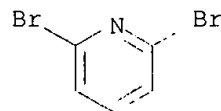
RN 328-74-5 HCAPLUS
 CN Benzenamine, 3,5-bis(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 431-03-8 HCAPLUS
 CN 2,3-Butanedione (8CI, 9CI) (CA INDEX NAME)



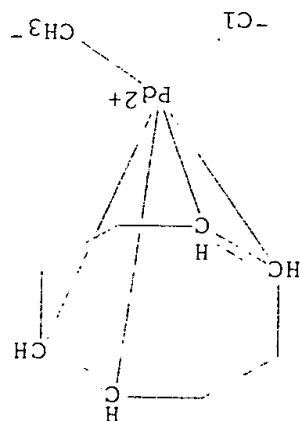
RN 626-05-1 HCAPLUS
 CN Pyridine, 2,6-dibromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



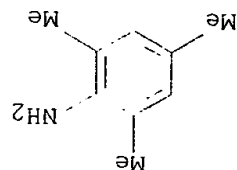
RN 24544-04-5 HCAPLUS
 CN Benzenamine, 2,6-bis(1-methylethyl)- (9CI) (CA INDEX NAME)

Nc1cc(C)cc(C)c1

RN	HCAPLUS	Palladium, chloro[(1,2,5,6-eta.)-1,5-cyclooctadiene]methyl- (9CI)	INDEX NAME)
CN			

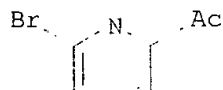


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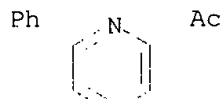


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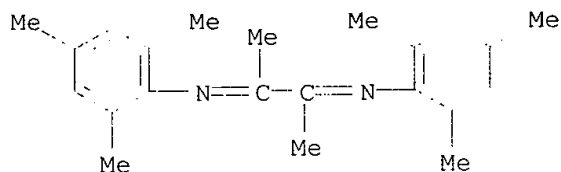
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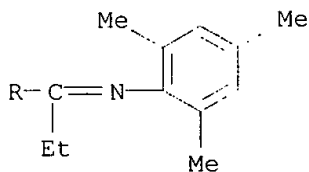
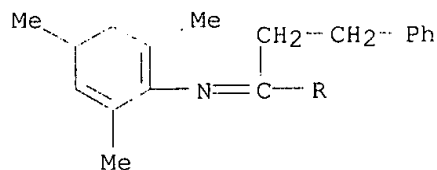
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CN Ethanone, 1-(6-phenyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



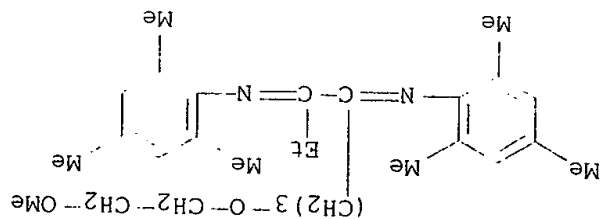
RN 202277-65-4 HCAPLUS
CN Benzenamine, N,N'-(1,2-dimethyl-1,2-ethanediylidene)bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)



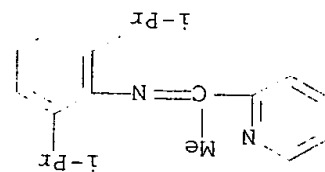
RN 202405-40-1 HCAPLUS
CN Benzenamine, N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediylidene]bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)



RN 202405-43-4 HCAPLUS
CN Benzenamine, N,N'-[1-ethyl-2-[3-(2-methoxyethoxy)propyl]-1,2-ethanediylidene]bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)



RN 219325-26-5 HCAPLUS
CN Benzenamine, 2,6-bis(1-methylethyl)-N-[1-(2-pyridinyl)ethylidene] - (9CI)
(CA INDEX NAME)



IT 9002-88-4P, Polyethylene 50981-41-4P, Polyhexene
152757-13-6P, 1-Phenyl-3,4-hexanedione 202405-39-8P
202405-44-5P 202405-46-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(combinatorial synthesis and screening of organometallic compds. as
olefin polymn. catalysts)
9002-88-4 HCAPLUS
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1
CRN 74-85-1
CMF C2 H4

H2C=CH2

RN 50981-41-4 HCAPLUS
CN Hexene, homopolymer (9CI) (CA INDEX NAME)

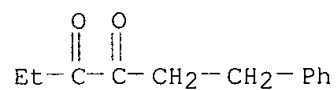
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CM 2
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CMF C6 H14

Me-(CH2)4-Me

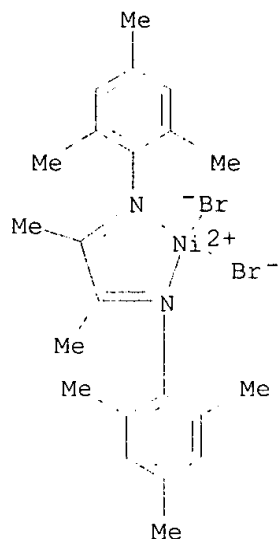
RN 152757-13-6 HCAPLUS

CN 3,4-Hexanedione, 1-phenyl- (9CI) (CA INDEX NAME)



RN 202405-39-8 HCAPLUS

CN Nickel, dibromo[N,N'-(1,2-dimethyl-1,2-ethanediylidene)bis(2,4,6-trimethylbenzenamine-.kappa.N)]- (9CI) (CA INDEX NAME)

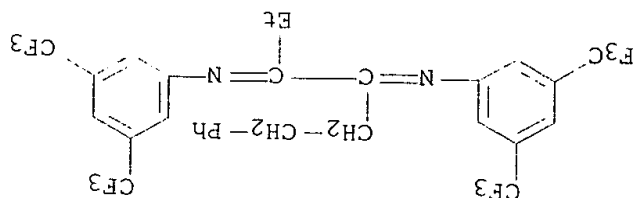


RN 202405-44-5 HCAPLUS

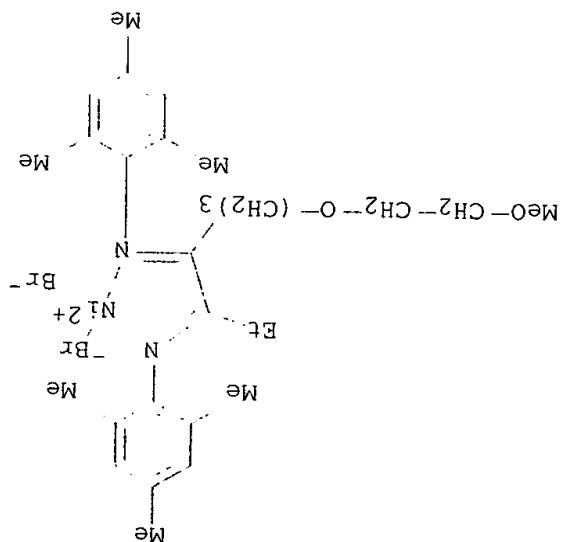
CN Nickel, dibromo[N,N'-[1-ethyl-2-[3-(2-methoxyethoxy)propyl]-1,2-ethanediylidene]bis(2,4,6-trimethylbenzenamine-.kappa.N)]- (9CI) (CA INDEX NAME)

Searched by Susan Hanley 305-4053

IC	601N033-00
NCL	436037000
CC	35-3 (Chemistry of Synthetic High Polymers)
ST	Section cross-reference(s): 29, 67, 78 combinatorial synthesis organometallic compd olefin polym catalyst; diminish polystyrene combinatorial prep olefin polym catalyst; nickel diminish complex prep olefin polym catalyst; palladium diminish complex prep olefin polym catalyst
IT	Aluminoxanes
IT	RL: CAT (Catalyst use); USES (Uses) (Me, cocatalyst; combinatorial synthesis and screening of organometallic compds. as olefin polym. catalysts) Combinatorial chemistry Combinatorial library Polymer-supported reagents Polymerization catalysts (combinatorial synthesis and screening of organometallic compds. as olefin polym. catalysts) Organometallic compounds
IT	RL: CAT (Catalyst use); CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (combinatorial synthesis and screening of organometallic compds. as



RN	202405-46-7	HCAPLUS
CN	Benzenameine, N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediyli]dene]bis[3,5-bis(trifluoromethyl)- (9CI) (CA INDEX NAME)]	



- olefin polymn. catalysts)
- IT Polyolefins
RL: SPN (Synthetic preparation); PREP (Preparation)
(combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT Transition metal complexes
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(diimine; combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT Imines
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(diimines, transition metal complexes; combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 7550-45-0P, Tetrachlorotitanium, preparation
RL: CAT (Catalyst use); CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(catalysts, nonsupported and polystyrene-supported; combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 64-18-6, Formic acid, uses 144-62-7, Oxalic acid, uses 7664-93-9, Sulfuric acid, uses
RL: CAT (Catalyst use); USES (Uses)
(combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 366001-62-9DP, polystyrene- and PEG-polystyrene-supported 366001-63-0DP, polystyrene- and PEG-polystyrene-supported
RL: CAT (Catalyst use); CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)
(combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 202405-41-2P 202405-45-6P 270928-37-5P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 431-03-8DP, 2,3-Butanedione, polystyrene- and PEG-polystyrene-supported 366001-64-1DP, polystyrene-supported
RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation)
(combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 9003-70-7DP, Styrene-divinylbenzene copolymer, bromomethylated, hydroxymethylated, and chlorosulfonated 202405-42-3DP, polystyrene- and PEG-polystyrene-supported
RL: CPN (Combinatorial preparation); CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
(combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 9037-24-5, Amberlyst 15 28923-39-9, (1,2-Dimethoxyethane)nickel dibromide 73342-17-3D, polystyrene-supported 202405-42-3
RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); RACT (Reactant or reagent)
(combinatorial synthesis and screening of organometallic compds. as olefin polymn. catalysts)
- IT 98-80-6, Phenylboronic acid 100-39-0, Benzyl bromide

328-74-5, 3,5-Bis(trifluoromethyl)aniline 431-03-8,
 2,3-Butanedione 626-05-1, 2,6-Dibromopyridine 24544-04-5
 , 2,6-Diisopropylaniline 54149-17-6, 1-(2-Bromoethoxy)-2-
 methoxyethane 63936-85-6, Chloro(1,5-
 cyclooctadiene)methylpalladium
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (combinatorial synthesis and screening of organometallic compds. as
 olefin polymn. catalysts)
 88-05-1P, 2,4,6-Trimethylaniline 49669-13-8P,
 2-Acetyl-6-bromopyridine 59576-29-3P, 2-Acetyl-6-phenylpyridine
 202277-65-4P 202405-40-1P 202405-43-4P
 219325-26-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); RFP (Preparation); RACT
 (Reactant or reagent)
 (combinatorial synthesis and screening of organometallic compds. as
 olefin polymn. catalysts)
 9002-88-4P, Polyethylene 50981-41-4P, Polyhexene
 152757-13-6P, 1-Phenyl-3,4-hexanedione 202405-39-8P
 202405-44-5P 202405-46-7P
 RL: SPN (Synthetic preparation); RFP (Preparation)
 (combinatorial synthesis and screening of organometallic compds. as
 olefin polymn. catalysts)
 REFERENCE COUNT: 140 THERE ARE 140 CITED REFERENCES AVAILABLE IN THE RE
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L14 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS

2002:556019 HCAPLUS

137:109624

TITLE:

INVENTOR(S):
 and analysis of organometallic compounds and catalyst
 Weinberg, W. Henry; McFarland, Eric; Goldwasser, Isy,
 Bousie, Thomas; Turner, Howard; Van Beek,
 Johannes A. M.; Murphy, Vince; Powers,
 Timothy

PATENT ASSIGNEE(S):

SOURCE:

U.S. Pat. Appl. Publ., 65 pp.

CODEN: USXXCO

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT: 20

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002098471	A1	20020725	US 1999-235368	19990121
AT 208755	E	20011115	AT 1999-203632	19970722
AT 210108	E	20011215	AT 1999-203630	19970722
AT 210620	E	20011215	AT 1999-203631	19970722
JP 2002241319	A2	20020828	JP 2001-378679	19970722
JP 2002241387	A2	20020828	JP 2001-378680	19970722
JP 2002241388	A2	20020828	JP 2001-378681	19970722
US 2001033375	A1	20011025	US 2001-874758	20010605
US 2002197731	A1	20021226	US 2002-183306	20020625
PRIORITY APPLN. INFO.:				
US 1996-16102P	P	19960723	US 1996-28106P	19961009
US 1996-29255P	P	19961025	US 1996-28105P	19961009
US 1997-35366P	P	19970110	US 1997-48987P	19970609
US 1996-28106P	P	19961009	US 1996-28105P	19961009

US 1997-35202P P 19970110
 US 1997-50949P P 19970613
 JP 1998-507246 A3 19970722
 US 1997-898715 A2 19970722
 US 1997-946135 A1 19971007
 US 1997-947085 A1 19971008
 US 1999-474344 A3 19991229

AB A method of making an array of **metal-ligand** compds. comprises: (a) synthesizing a first **metal-binding ligand** and a second **metal-binding ligand** on first and second regions on a substrate; and (b) delivering a first metal ion to the first **metal-binding ligand** and a second **metal** ion to the second **metal-binding ligand** to form a first **metal-ligand** compd. and a second **metal-ligand** compd. The complexes (e.g., metallocene or diimine complexes) are useful as catalysts for polymn. of olefins.

IT 184699-32-9

RL: CAT (Catalyst use); USES (Uses)
 (activator; polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)

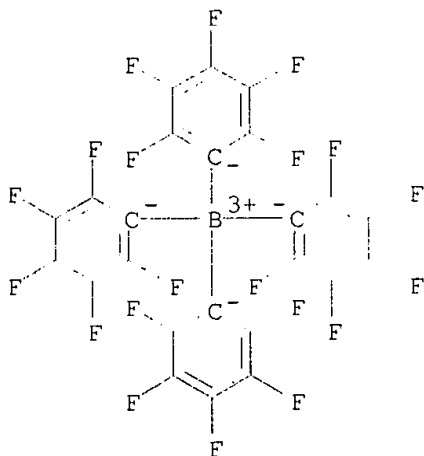
RN
 CN

184699-32-9 HCAPLUS

Borate(1-), tetrakis(pentafluorophenyl)-, hydrogen, compd. with N-methylbenzenamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 118611-98-6
 CMF C24 B F20 . H
 CCI CCS



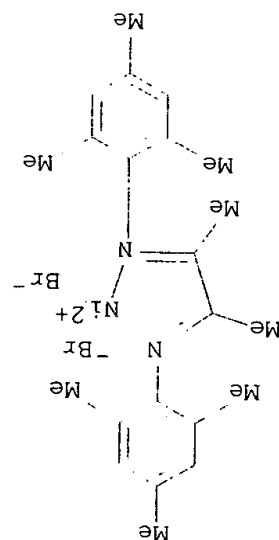
● H⁺

CM 2

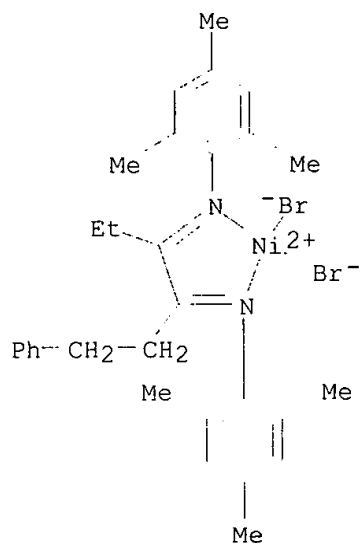
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 CMF C7 H9 N

Me-NH-PH

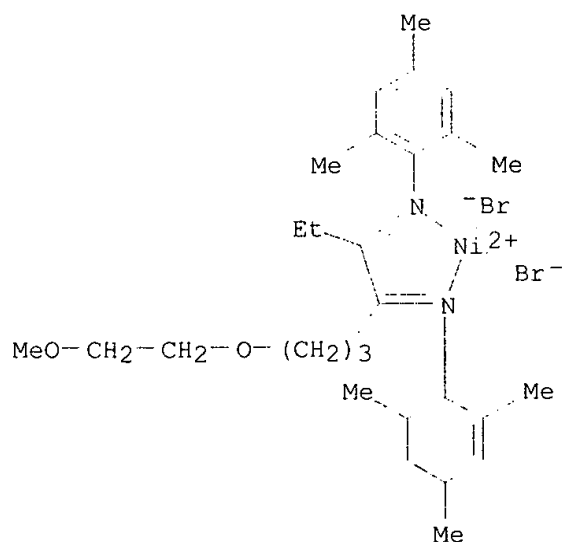
IT 202405-39-8P 202405-41-2P 202405-44-5P
 202405-45-6P 202405-47-8P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (uses)
 (polymn. method from the combinatorial synthesis and anal. of
 organometallic compds. and catalysts)
 RN 202405-39-8 HCAPLUS
 CN Nickel, dibromo[N,N'-(1,2-dimethyl-1,2-ethanediyliidene)bis[2,4,6-
 trimethylbenzenamine-.kappa.N]]- (9CI) (CA INDEX NAME)



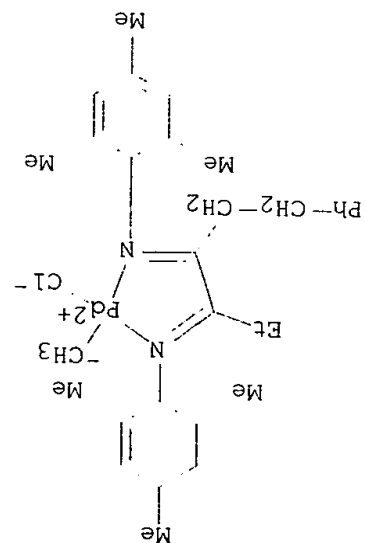
RN 202405-41-2 HCAPLUS
 CN Nickel, dibromo[N,N'-(1-ethyl-2-(2-phenylethyl)-1,2-
 ethanediyliidene)bis[2,4,6-trimethylbenzenamine-.kappa.N]]- (9CI) (CA
 INDEX NAME)



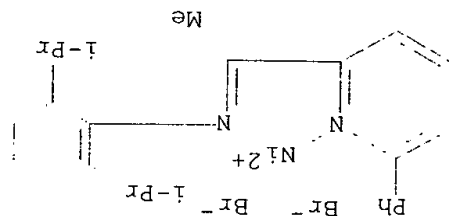
RN 202405-44-5 HCAPLUS
 CN Nickel, dibromo[N,N'-[1-ethyl-2-[3-(2-methoxyethoxy)propyl]-1,2-ethanediylidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]]- (9CI) (CA INDEX NAME)



RN 202405-45-6 HCAPLUS
 CN Palladium, chloro[N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediylidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]]methyl- (9CI) (CA INDEX NAME)



RN 202405-47-8 HCAPLUS
 CN Nickel, [2,6-bis(1-methylethyl)-N-[1-(6-phenyl-2-pyridinyl)-
 .kappa.N]ethylidene]benzenamine-.kappa.N]dibromo- (9CI) (CA INDEX NAME)



IT 9002-88-4P, (Poly)ethylene 50981-41-4P, Hexene
 homopolymer 152757-13-6P, 1-phenyl-3,4-hexanedione
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (polymn. method from the combinatorial synthesis and anal. of
 organometallic compds. and catalysts)
 RN 9002-88-4 HCAPLUS
 CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1
 CRN 74-85-1
 CMF C2 H4

H2C=CH2

RN 50981-41-4 HCAPLUS
 CN Hexene, homopolymer (9CI) (CA INDEX NAME)
 CM 1

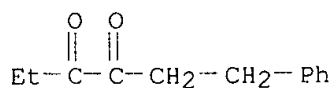
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 CMF C6 H12
 CCI IDS

CM 2

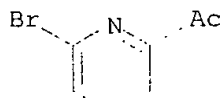
CRN 110-54-3
 CMF C6 H14

Me- (CH₂)₄ - Me

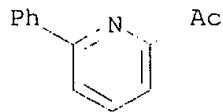
RN 152757-13-6 HCAPLUS
 CN 3,4-Hexanedione, 1-phenyl- (9CI) (CA INDEX NAME)



IT 49669-13-8P, 2-Acetyl-6-bromopyridine 59576-29-3P,
 2-Acetyl-6-phenylpyridine 202277-65-4P 202405-43-4P
 202405-48-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (polymn. method from the combinatorial synthesis and anal. of
 organometallic compds. and catalysts)
 RN 49669-13-8 HCAPLUS
 CN Ethanone, 1-(6-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)

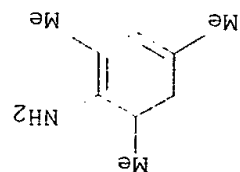


RN 59576-29-3 HCAPLUS
 CN Ethanone, 1-(6-phenyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

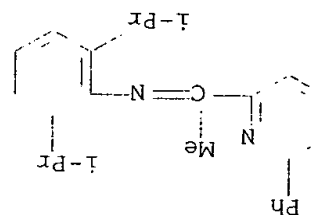


RN 202277-65-4 HCAPLUS
 CN Benzenamine, N,N'-(1,2-dimethyl-1,2-ethanediylidene)bis[2,4,6-trimethyl-
 (9CI) (CA INDEX NAME)

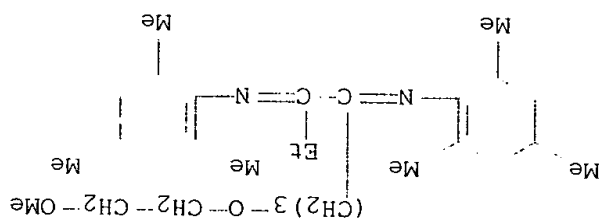
Searched by Susan Hanley 305-4053



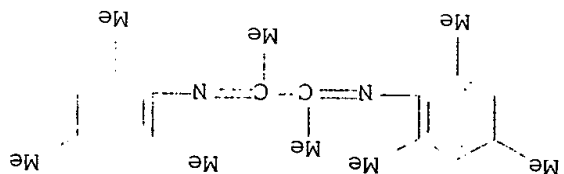
17	88-05-1, 2,4,6-trimethylaniline 98-80-6, phenylboronic acid 100-39-0, Benzyl bromide 110-89-4D, Piperidine, polymer-supported 127-19-5, N,N-dimethylacetamide 431-03-8, 2,3-Butanedione 626-05-1, 2,6-Dibromopyridine 24544-04-5, 2,6-Diisopropylaniline 28923-39-9, Dibromo(1,2-dimethoxyethane)nickel 54149-17-6 63936-85-6, (COD)PdMeCl 202405-40-1
	RL: RCT (Reactant); RACT (Reactant or reagent)
	(polymn. method from the combinatorial synthesis and anal. of organometallic comps. and catalysts)
RN	88-05-1 HCAPLUS
CN	Benzenamine, 2,4,6-trimethyl- (9CI) (CA INDEX NAME)



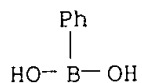
RN	202405-48-9	HCAPLUS	Benzenamine, 2,6-bis(1-methylethyl)-N-[1-(6-phenyl-2-pyridinyl)ethylidene]-	(9CI) (CA INDEX NAME)
CN				



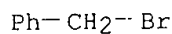
RN	202405-43-4	HCAPLUS	Benzenamine, N,N'-[1-ethyl-2-[3-(2-methoxyethoxy)propyl]-1,2-ethanedithiylidene]bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)
CN			



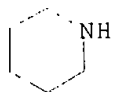
RN 98-80-6 HCAPLUS
CN Boronic acid, phenyl- (9CI) (CA INDEX NAME)



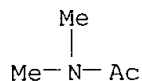
RN 100-39-0 HCAPLUS
CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)



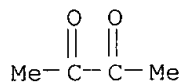
RN 110-89-4 HCAPLUS
CN Piperidine (7CI, 8CI, 9CI) (CA INDEX NAME)



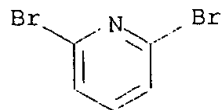
RN 127-19-5 HCAPLUS
CN Acetamide, N,N-dimethyl- (8CI, 9CI) (CA INDEX NAME)



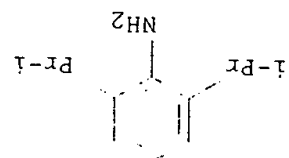
RN 431-03-8 HCAPLUS
CN 2,3-Butanedione (8CI, 9CI) (CA INDEX NAME)



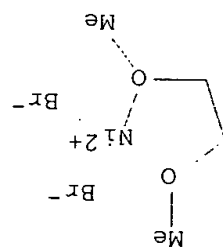
RN 626-05-1 HCAPLUS
CN Pyridine, 2,6-dibromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 24544-04-5 HCAPLUS
CN Benzenamine, 2,6-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



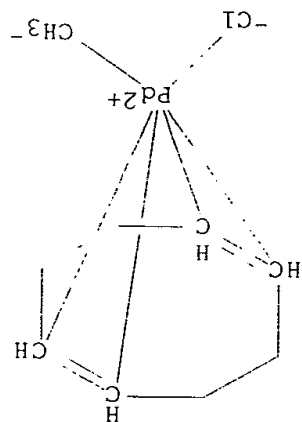
RN 28923-39-9 HCAPLUS
CN Nickel, dibromo[1,2-di(methoxy-.kappa.O)ethane] - (9CI) (CA INDEX NAME)



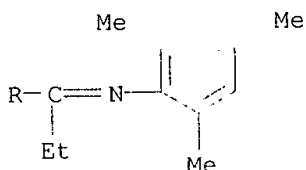
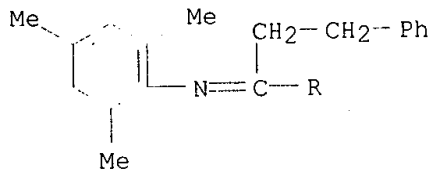
RN 54149-17-6 HCAPLUS
CN Ethane, 1-(2-bromoethoxy)-2-methoxy- (9CI) (CA INDEX NAME)

MeO-CH2-CH2-O-CH2-CH2Br

RN 63936-85-6 HCAPLUS
CN Palladium, chloro[(1,2,5,6-.eta.)-1,5-cyclooctadiene]methyl- (9CI) (CA INDEX NAME)



RN 202405-40-1 HCAPLUS
CN Benzenamine, N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediyliidene]bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)]



- IC ICM Q12Q001-00
ICS B01J033-00; B01J037-00; B01J031-00; G01N033-543; B01J021-04
NCL 435004000
CC 35-3 (Chemistry of Synthetic High Polymers)
ST metallocene catalyst olefin polymn
IT Aluminoxanes
RL: CAT (Catalyst use); USES (Uses)
(Me; polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)
IT Polymerization catalysts
(polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)
IT Metallocenes
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)
IT 184699-32-9
RL: CAT (Catalyst use); USES (Uses)
(activator; polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)
IT 202405-39-8P 202405-41-2P 202405-44-5P
202405-45-6P 202405-47-8P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)
IT 9002-88-4P, (Poly)ethylene 50981-41-4P, Hexene
homopolymer 152757-13-6P, 1-Phenyl-3,4-hexanedione
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)
IT 49669-13-8P, 2-Acetyl-6-bromopyridine 59576-29-3P,
2-Acetyl-6-phenylpyridine 202277-65-4P 202405-43-4P
202405-48-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(polymn. method from the combinatorial synthesis and anal. of organometallic compds. and catalysts)
IT 88-05-1, 2,4,6-Trimethylaniline 98-80-6, Phenylboronic
acid 100-39-0, Benzyl bromide 110-89-4D, Piperidine,
polymer-supported 127-19-5, N,N-Dimethylacetamide

431-03-8, 2,3-Butanedione 626-05-1, 2,6-Dibromopyridine
 24544-04-5, 2,6-Dibromopyridine 28923-39-9,
 Dibromo(1,2-dimethoxyethane)nickel 54149-17-6 63936-85-6
 (COD) PdMeCl 202405-40-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polym. method from the combinatorial synthesis and anal. of
 organometallic compds. and catalysts)

L14 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS
 2002:533936 HCAPLUS
 137:94185
 TITLE:

INVENTOR(S):
 Weinberg, W. Henry; Goldwasser, Isy; Bousie, Thomas;
 Turner, Howard; Van Beek, Johannes A. M.;
 Murphy, Vince; Powers, Tim
 Symyx Technologies, Inc., USA
 U.S., 62 pp., Cont.-In-part of U. S. Ser. No. 127,660.
 CODEN: USXXAM
 Patent
 English
 FAMILY ACC. NUM. COUNT: 20
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6419881	B1	20020716	US 1999-337043	19990621
US 5985356	A	19991116	US 1994-327513	19941018
EP 992281	A2	20000412	EP 1999-203888	19951018
EP 992281	A3	20000816		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
EP 1002572	A2	20000524	EP 1999-203886	19951018
EP 1002572	A3	20000920		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
EP 1002573	A2	20000524	EP 1999-203887	19951018
EP 1002573	A3	20000816		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 6030917	A	20000229	US 1997-898715	19970722
JP 2002241319	A2	20020828	JP 2001-378679	19970722
JP 2002241387	A2	20020828	JP 2001-378680	19970722
JP 2002241388	A2	20020828	JP 2001-378681	19970722
US 6420179	B1	20020716	US 1998-127660	19980731
US 6248540	B1	20010619	US 1999-390001	19990903
US 2001033375	A1	20011025	US 2001-874758	20010605
US 2002119243	A1	20020829	US 2002-74745	20020211
US 2002197731	A1	20021226	US 2002-183306	20020625
US 1994-327513	A3	19941018	US 1996-16102P	19960723
US 1996-28106P	P	19961009	US 1996-29255P	19961025
US 1997-35366P	P	19970110	US 1997-48987P	19970609
US 1997-898715	A3	19970722	US 1998-127660	19980731
EP 1995-937472	A3	19951018	US 1996-28105P	19961009
US 1997-35202P	P	19970110	US 1997-50949P	19970613
US 1998-507246	A3	19970722	US 1997-946135	19971007

PRIORITY APPLN. INFO.:

US 1997-947085 A1 19971008
 US 1998-127195 A1 19980731
 US 1999-474344 A3 19991229

AB An array comprises at least 10 different activated **metal-ligand** polymn. catalysts at known locations in wells of a substrate. The catalysts (typically transition metal diimines) are useful for polymn. of olefins.

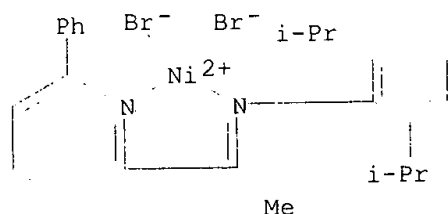
IT 202405-47-8

RL: CAT (Catalyst use); USES (Uses)

(combinatorial arrays of organometallic compd. polymn. catalysts)

RN 202405-47-8 HCAPLUS

CN Nickel, [2,6-bis(1-methylethyl)-N-[1-(6-phenyl-2-pyridinyl)-.kappa.N]ethylidene]benzenamine-.kappa.N]dibromo- (9CI) (CA INDEX NAME)



IT 202405-39-8P 202405-41-2DP, polymer-supported

202405-41-2P 202405-44-5P 202405-45-6DP,

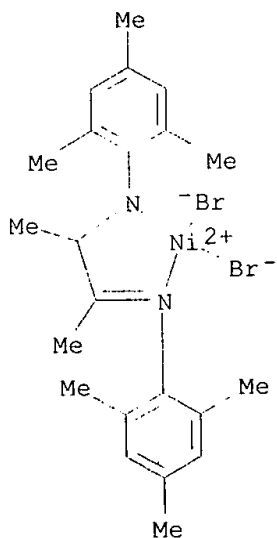
polymer-supported 202405-45-6P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)

(combinatorial arrays of organometallic compd. polymn. catalysts)

RN 202405-39-8 HCAPLUS

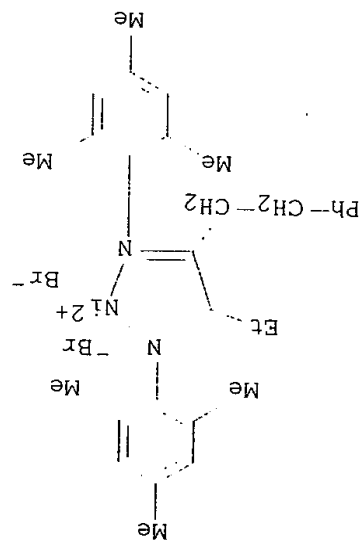
CN Nickel, dibromo[N,N'-(1,2-dimethyl-1,2-ethanediylidene)bis[2,4,6-trimethylbenzenamine-.kappa.N]]- (9CI) (CA INDEX NAME)



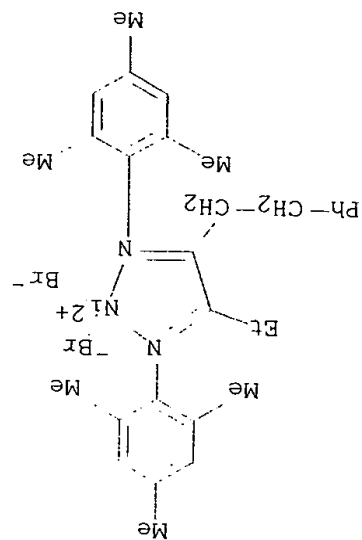
RN 202405-41-2 HCAPLUS

CN Nickel, dibromo[N,N'-(1-ethyl-2-(2-phenylethyl)-1,2-

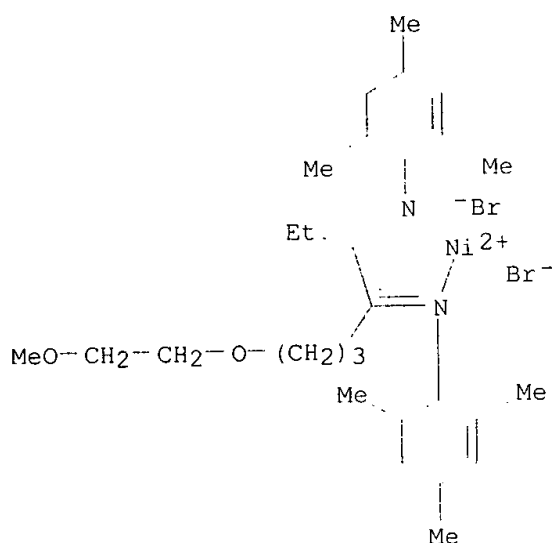
ethanediyliidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]] - (9CI) (CA)



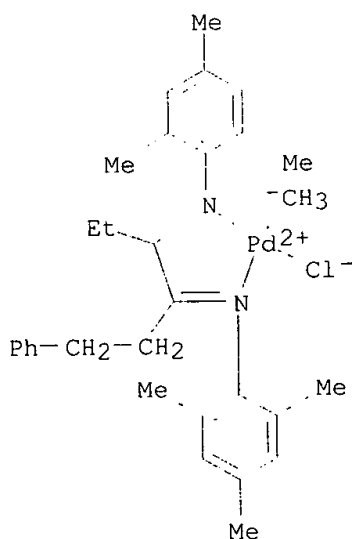
RN 202405-41-2 HCAPLUS
CN Nickel, dibromo[N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediyliidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]] - (9CI) (CA)



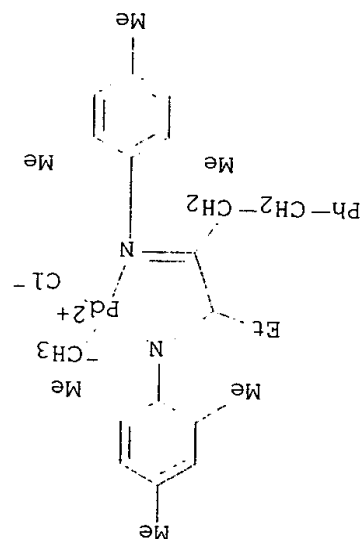
RN 202405-44-5 HCAPLUS
CN Nickel, dibromo[N,N'-[1-ethyl-2-(3-(2-methoxyethoxy)propyl)-1,2-ethanediyliidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]] - (9CI) (CA)



RN 202405-45-6 HCAPLUS
 CN Palladium, chloro[N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediylidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]]methyl- (9CI)
 (CA INDEX NAME)



RN 202405-45-6 HCAPLUS
 CN Palladium, chloro[N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediylidene]bis[2,4,6-trimethylbenzenamine-.kappa.N]]methyl- (9CI)
 (CA INDEX NAME)



IT 9002-88-4P, Polyethylene 50981-41-4P, Hexene homopolymer
 RN: IMF (Industrial manufacture); PREP (Preparation)
 (combinatorial arrays of organometallic compd. polymn. catalysts)
 CN 9002-88-4 HCAPLUS
 Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1
 CRN 74-85-1
 CMF C2 H4

H₂C=CH₂

RN 50981-41-4 HCAPLUS
 CN Hexene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 25264-93-1
 CMF C6 H12
 CCI IDS

CM 2

CRN 110-54-3
 CMF C6 H14

Me-(CH₂)₄-Me

IT 49669-13-8P, 2-Acetyl-6-bromopyridine 54149-17-6P
 59576-29-3P, 2-Acetyl-6-phenylpyridine 152757-13-6DP,
 polymer-supported 152757-13-6P, 1-Phenyl-3,4-hexanedione
 202277-65-4P 202405-40-1DP, polymer-supported

202405-43-4P 202405-46-7DP, polymer-supported

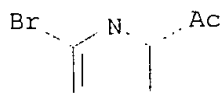
202405-46-7P 202405-48-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)

(combinatorial arrays of organometallic compd. polymn. catalysts)

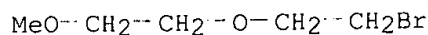
RN 49669-13-8 HCAPLUS

CN Ethanone, 1-(6-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)



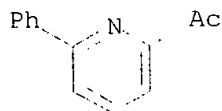
RN 54149-17-6 HCAPLUS

CN Ethane, 1-(2-bromoethoxy)-2-methoxy- (9CI) (CA INDEX NAME)



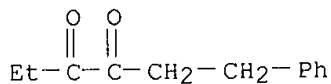
RN 59576-29-3 HCAPLUS

CN Ethanone, 1-(6-phenyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



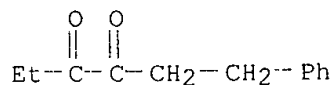
RN 152757-13-6 HCAPLUS

CN 3,4-Hexanedione, 1-phenyl- (9CI) (CA INDEX NAME)



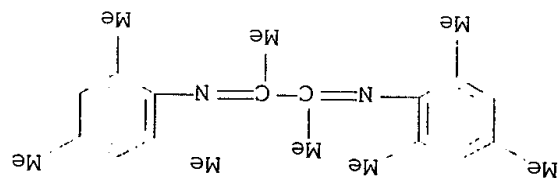
RN 152757-13-6 HCAPLUS

CN 3,4-Hexanedione, 1-phenyl- (9CI) (CA INDEX NAME)

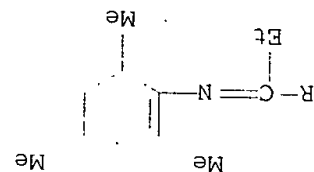
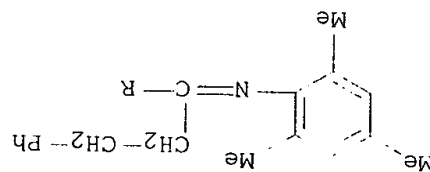


RN 202277-65-4 HCAPLUS

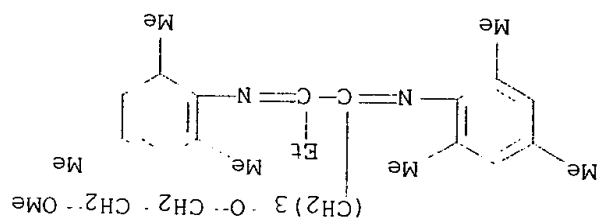
CN Benzenamine, N,N'-(1,2-dimethyl-1,2-ethanediylidene)bis[2,4,6-trimethyl-
(9CI) (CA INDEX NAME)



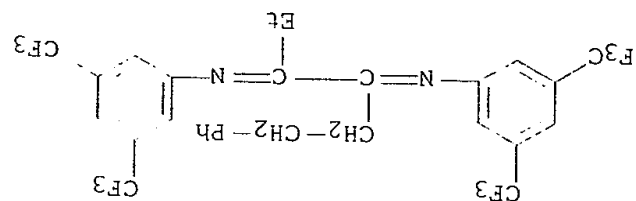
RN 202405-40-1 HCAPLUS
CN Benzenamine, N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanedithiolene]bis[2,4,6-trimethyl]- (9CI) (CA INDEX NAME)



RN 202405-43-4 HCAPLUS
CN Benzenamine, N,N'-[1-ethyl-2-[3-(2-methoxyethoxy)propyl]-1,2-ethanedithiolene]bis[2,4,6-trimethyl]- (9CI) (CA INDEX NAME)

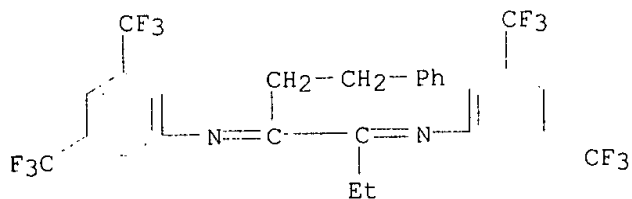


RN 202405-46-7 HCAPLUS
CN Benzenamine, N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanedithiolene]bis[3,5-bis(trifluoromethyl)-] - (9CI) (CA INDEX NAME)

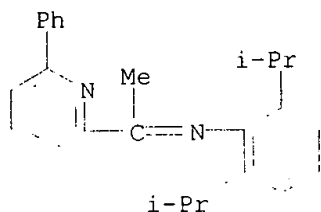


TRAN 09/817,821

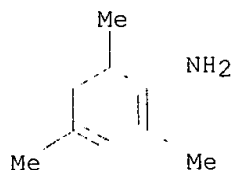
RN 202405-46-7 HCAPLUS
CN Benzenamine, N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediylidene]bis[3,5-bis(trifluoromethyl)- (9CI) (CA INDEX NAME)



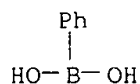
RN 202405-48-9 HCAPLUS
CN Benzenamine, 2,6-bis(1-methylethyl)-N-[1-(6-phenyl-2-pyridinyl)ethylidene]- (9CI) (CA INDEX NAME)



IT 88-05-1, 2,4,6-Trimethylaniline 98-80-6, Phenylboronic acid 100-39-0, Benzyl bromide 328-74-5
626-05-1, 2,6-Dibromopyridine 7550-45-0, Titanium tetrachloride, reactions 24544-04-5, 2,6-Diisopropylaniline 28923-39-9 63936-85-6 202405-40-1
202405-42-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(combinatorial arrays of organometallic compd. polymn. catalysts)
RN 88-05-1 HCAPLUS
CN Benzenamine, 2,4,6-trimethyl- (9CI) (CA INDEX NAME)



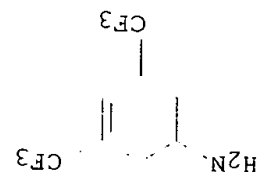
RN 98-80-6 HCAPLUS
CN Boronic acid, phenyl- (9CI) (CA INDEX NAME)



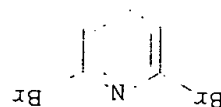
RN 100-39-0 HCAPLUS
CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)

Ph-CH₂-Br

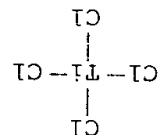
RN 328-74-5 HCAPLUS
CN Benzenamine, 3,5-bis(trifluoromethyl) - (9CI) (CA INDEX NAME)



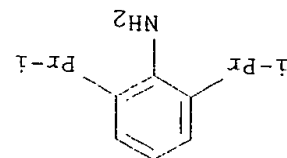
RN 626-05-1 HCAPLUS
CN Pyridine, 2,6-dibromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



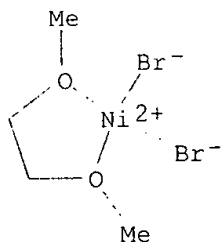
RN 7550-45-0 HCAPLUS
CN Titanium chloride (TiCl₄) (T-4) - (9CI) (CA INDEX NAME)



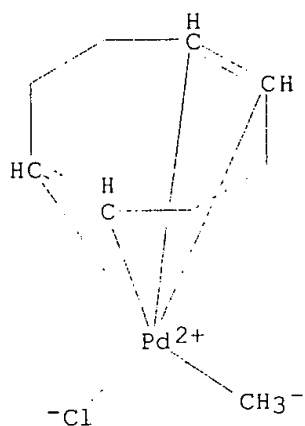
RN 24544-04-5 HCAPLUS
CN Benzenamine, 2,6-bis(1-methylethyl) - (9CI) (CA INDEX NAME)



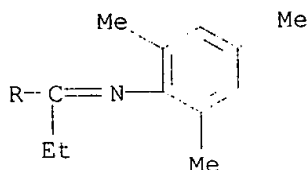
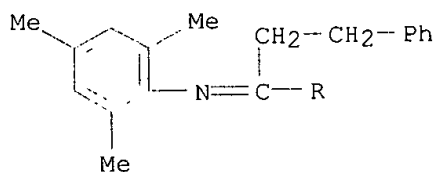
RN 28923-39-9 HCAPLUS
CN Nickel, dibromo[1,2-di(methoxy-.kappa.O)ethane] - (9CI) (CA INDEX NAME)



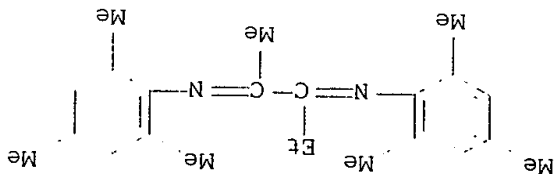
RN 63936-85-6 HCAPLUS
 CN Palladium, chloro[(1,2,5,6-.eta.)-1,5-cyclooctadiene]methyl- (9CI) (CA INDEX NAME)



RN 202405-40-1 HCAPLUS
 CN Benzenamine, N,N'-(1-ethyl-2-(2-phenylethyl)-1,2-ethanediylidene)bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)



RN 202405-42-3 HCAPLUS
 CN Benzenamine, N,N'-(1-ethyl-2-methyl-1,2-ethanediylidene)bis[2,4,6-trimethyl- (9CI) (CA INDEX NAME)



IT 9003-53-6D, Polystyrene, hydroxymethyl
 RL: NUU (Other use, unclassified); USES (Uses)
 (solid phase; combinatorial arrays of organometallic compd. polymn. catalysts)
 RN 9003-53-6 HCAPLUS
 CN Benzene, ethenyl-, homopolymer (9CI) (CA INDEX NAME)
 CM 1

CRN 100-42-5
 CMF C8 H8

H2C=CH-Ph

IC G01N021-00; G01N033-00
 NCL 422099000
 CC 35-3 (Chemistry of Synthetic High Polymers)
 ST Olefin polymn catalyst combinatorial array
 IT Aluminoxanes
 RL: CAT (Catalyst use); USES (Uses)
 (Me; combinatorial arrays of organometallic compd. polymn. catalysts)
 IT Combinatorial library
 IT Polymerization catalysts
 (combinatorial arrays of organometallic compd. polymn. catalysts)
 IT 202405-47-8
 RL: CAT (Catalyst use); USES (Uses)
 (combinatorial arrays of organometallic compd. polymn. catalysts)
 IT 202405-39-8P 202405-41-2DP, polymer-supported
 202405-41-2P 202405-44-5P 202405-45-6DP,
 polymer-supported 202405-45-6P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 IT (combinatorial arrays of organometallic compd. polymn. catalysts)
 9002-88-4P, Polyethylene 50981-41-4P, Hexene homopolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (combinatorial arrays of organometallic compd. polymn. catalysts)
 IT 49669-13-8P, 2-Acetyl-6-bromopyridine 54149-17-6P
 59576-29-3P, 2-Acetyl-6-phenylpyridine 152757-13-6P,
 polymer-supported 152757-13-6P, 1-Phenyl-3,4-hexanedione
 202277-65-4P 202405-40-1DP, polymer-supported
 202405-43-4P 202405-46-7DP, polymer-supported
 202405-46-7P 202405-48-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (combinatorial arrays of organometallic compd. polymn. catalysts)
 IT 88-05-1, 2,4,6-Trimethylanioline 98-80-6, Phenylboronic
 acid 100-39-0, Benzyl bromide 328-74-5
 626-05-1, 2,6-Dibromopyridine 7550-45-0, Titanium

tetrachloride, reactions 24544-04-5, 2,6-Diisopropylaniline
28923-39-9 63936-85-6 202405-40-1
202405-42-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(combinatorial arrays of organometallic compd. polymn. catalysts)

IT 9003-53-6D, Polystyrene, hydroxymethyl

RL: NUU (Other use, unclassified); USES (Uses)
(solid phase; combinatorial arrays of organometallic compd. polymn. catalysts)

REFERENCE COUNT: 134 THERE ARE 134 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L14 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:449730 HCAPLUS

DOCUMENT NUMBER: 137:6602

TITLE: Catalysts for copolymerizing ethylene and isobutyl
and copolymers

INVENTOR(S): Boussie, Thomas R.; Diamond, Gary M.; Goh,
Christopher; Hall, Keith A.; La Pointe,
Anne M.; Leclerc, Margarete K.; Lund, Cheryl;
Murphy, Vince

PATENT ASSIGNEE(S): Symyx Technologies, Inc., USA

SOURCE: PCT Int. Appl., 147 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046249	A2	20020613	WO 2001-US44147	20011106
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AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,				
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,				
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002041517	A5	20020618	AU 2002-41517	20011106
US 2002137845	A1	20020926	US 2001-992760	20011106
US 2002142912	A1	20021003	US 2001-992630	20011106
US 2002147288	A1	20021010	US 2001-992385	20011106
US 2002156279	A1	20021024	US 2001-992789	20011106
US 2002173419	A1	20021121	US 2001-992148	20011106
US 2002177711	A1	20021128	US 2001-993031	20011106
PRIORITY APPLN. INFO.:			US 2000-246781P P	20001107
			US 2001-301666P P	20010628
			WO 2001-US44147 W	20011106

OTHER SOURCE(S): MARPAT 137:6602

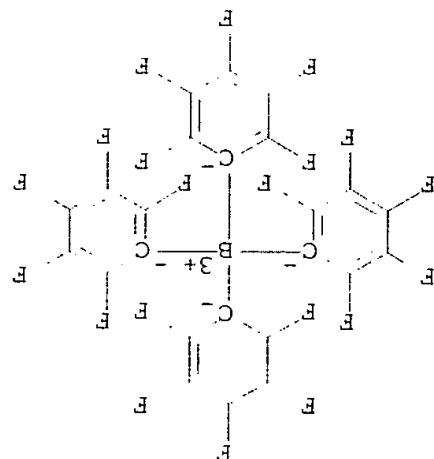
AB Compsn., metal-ligand complexes and arrays with
pyridyl amine ligands catalyze the title polymn. The catalysts comprise
ligand R1NHTQ, where Q = pyridyl; T = CR2R3; R2, R3 = H, hydrocarbyl,
silyl, boryl, phosphino, amino, thio, seleno, halide, nitro, and mixts.;
optionally R1-3 may form a ring; R1 = (substituted) aryl, hafnium
precursor, optionally .gtoreq.1 activator and trialkylaluminum. Catalysts
with Hf metal centers have high performance characteristics, including

higher comonomer incorporation into ethylene/olefin copolymers, for example with, 1-octene, isobutylene or styrene, which are also exemplified. Certain of the catalysts are for polymg. propylene to high mol. wt. isotactic polypropylene in a soln. process at a variety of polymn. conditions, which are also exemplified.

118612-00-3, N,N-dimethylanilinium tetrakis(pentafluorophenyl)bora te
 RL: CAT (catalyst use); USES (uses)
 (activator; pyridyl amine ligands for hafnium complexes for polymg. olefins)
 118612-00-3 HCAPLUS
 Borate(1-), tetrakis(pentafluorophenyl)-, hydrogen, compd. with N,N-dimethylbenzenamine (1:1) (9CI) (CA INDEX NAME)

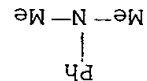
IT
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CM 1
 CRN 118611-98-6
 CMF C24 B F20 . H
 CCI CCS



● H⁺

CM 2
 CRN 121-69-7
 CMF C8 H11 N



IT

383889-18-7P 426207-87-6P 426207-89-8P
 426207-91-2P 426207-92-3P 426207-93-4P
 426207-94-5P 426207-95-6P 426207-96-7P
 426207-97-8P 426207-98-9P 426207-99-0P

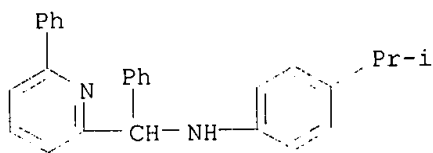
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 426208-06-2P 426208-07-3P 426208-08-4P
 426208-09-5P 426208-10-8P 426208-11-9P
 426208-12-0P 426208-13-1P 426208-14-2P
 426208-15-3P 426208-16-4P 426208-17-5P
 426208-18-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)

(ligand; pyridyl amine ligands for hafnium complexes for polymg.
 olefins)

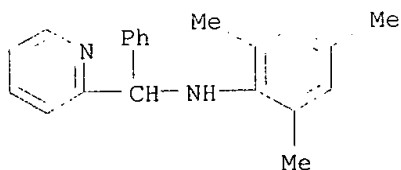
RN 383889-18-7 HCAPLUS

CN 2-Pyridinemethanamine, N-[4-(1-methylethyl)phenyl]-.alpha.,6-diphenyl-
 (9CI) (CA INDEX NAME)



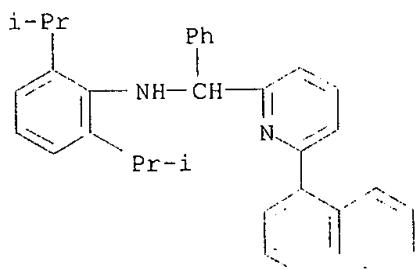
RN 426207-87-6 HCAPLUS

CN 2-Pyridinemethanamine, .alpha.-phenyl-N-(2,4,6-trimethylphenyl)- (9CI)
 (CA INDEX NAME)



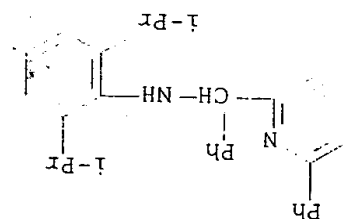
RN 426207-89-8 HCAPLUS

CN 2-Pyridinemethanamine, N-[2,6-bis(1-methylethyl)phenyl]-6-(1-naphthalenyl)-
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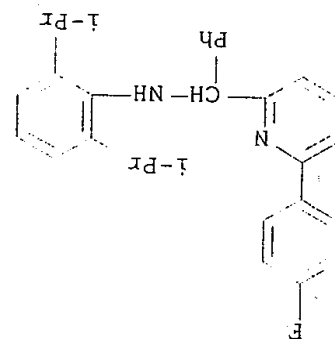


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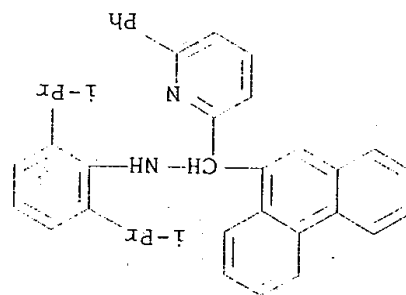
CN 2-Pyridinemethanamine, N-[2,6-bis(1-methylethyl)phenyl]-.alpha.,6-diphenyl-
 (9CI) (CA INDEX NAME)



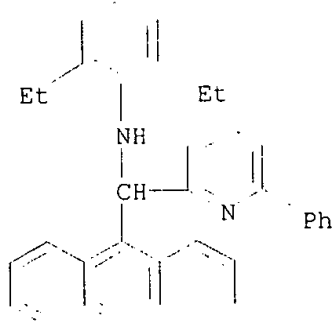
RN 426207-92-3 HCAPLUS
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(CA INDEX NAME)



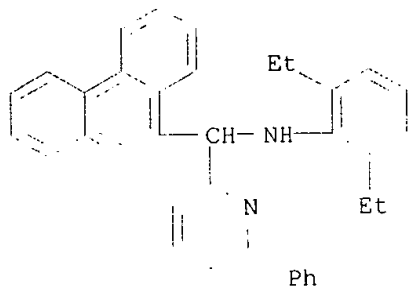
RN 426207-93-4 HCAPLUS
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phenanthrenyl-6-phenyl-.alpha. (9CI)
(CA INDEX NAME)



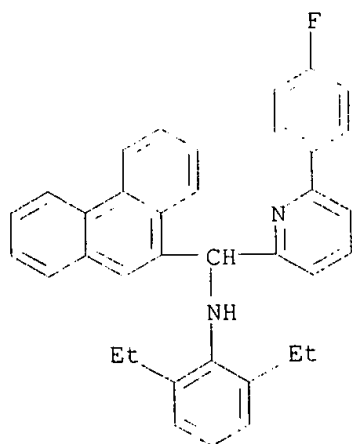
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(CA INDEX NAME)



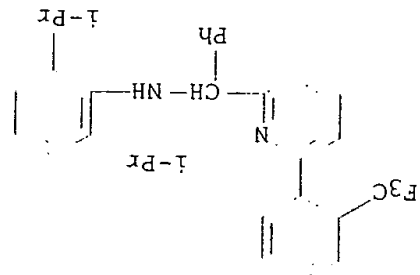
RN 426207-95-6 HCAPLUS
 CN 2-Pyridinemethanamine, N-(2,6-diethylphenyl)-.alpha.-9-phenanthrenyl-6-phenyl- (9CI) (CA INDEX NAME)



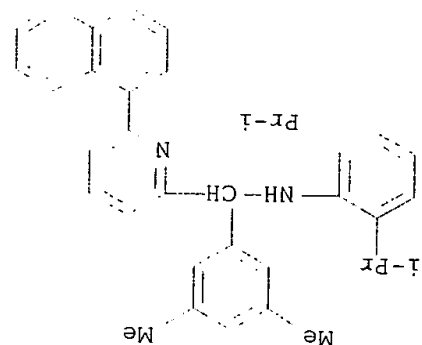
RN 426207-96-7 HCAPLUS
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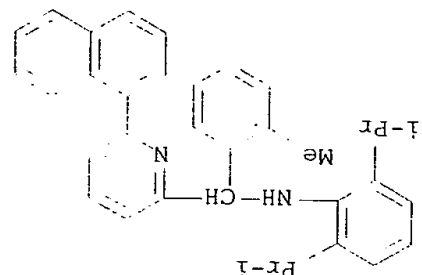
RN 426207-97-8 HCAPLUS
 CN 2-Pyridinemethanamine, N-[2,6-bis(1-methylethyl)phenyl]-.alpha.-phenyl-6-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



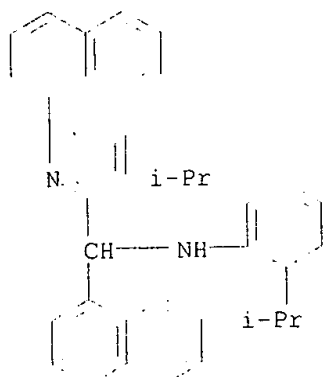
RN 426207-98-9 HCAPLUS
CN 2-Pyridinemethanamine, N-[2,6-bis(1-methylethyl)phenyl]-, 3,5-dimethylphenyl- (9CI) (CA INDEX NAME)



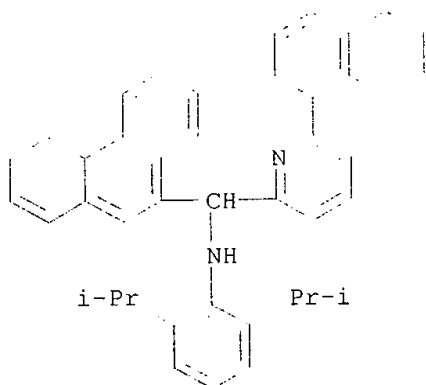
RN 426207-99-0 HCAPLUS
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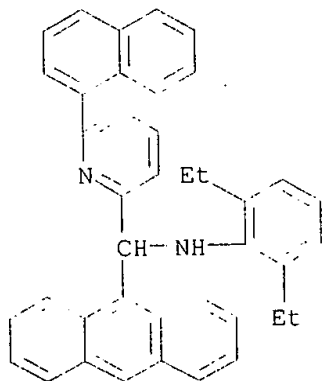
RN 426208-00-6 HCAPLUS
CN 2-Pyridinemethanamine, N-[2,6-bis(1-methylethyl)phenyl]-, 6-di-1-naphthalenyl- (9CI) (CA INDEX NAME)



RN 426208-01-7 HCAPLUS
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 .alpha.-9-phenanthrenyl- (9CI) (CA INDEX NAME)

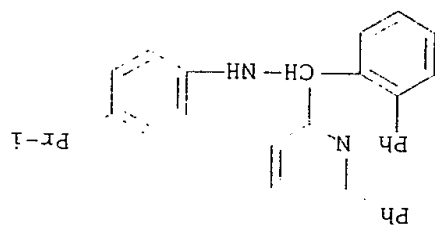


RN 426208-02-8 HCAPLUS
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 naphthalenyl)- (9CI) (CA INDEX NAME)

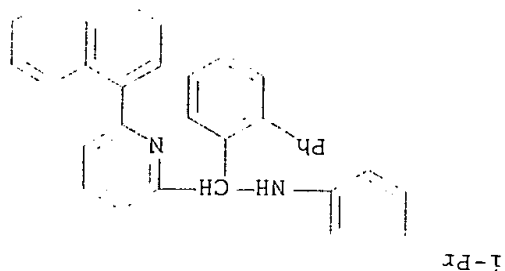


RN 426208-03-9 HCAPLUS

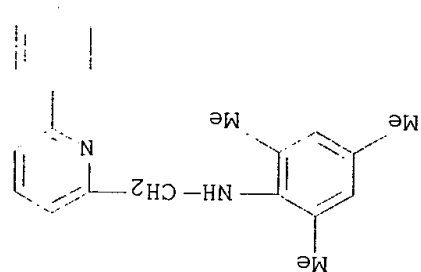
CN 2-Pyridinemethanamine, .alpha.-[1,1'-biphenyl]-2-yl-N-[4-(1-methylethyl)phenyl]-6-phenyl]- (9CI) (CA INDEX NAME)



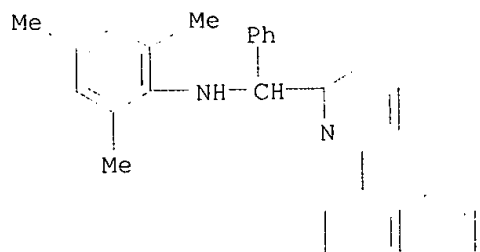
RN 426208-04-0 HCAPLUS
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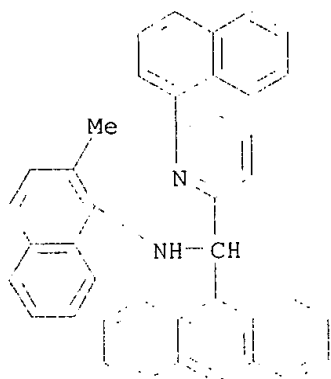
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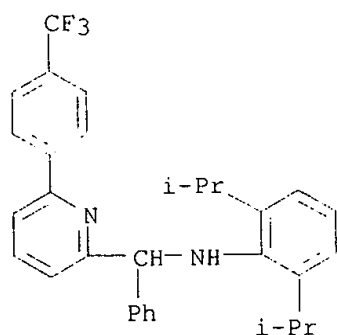
RN 426208-06-2 HCAPLUS
CN 2-Pyridinemethanamine, 6-(1-naphthalenyl)-.alpha.-phenyl-N-(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



RN 426208-07-3 HCAPLUS
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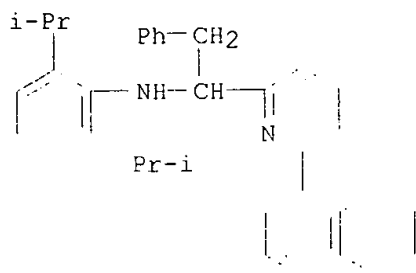


RN 426208-08-4 HCAPLUS
 CN 2-Pyridinemethanamine, N-[2,6-bis(1-methylethyl)phenyl]-.alpha.-phenyl-6-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

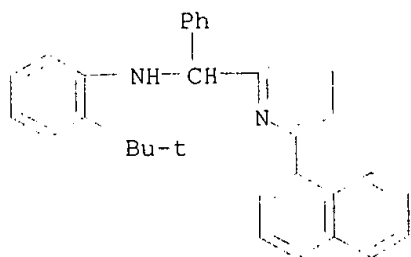


RN 426208-09-5 HCAPLUS
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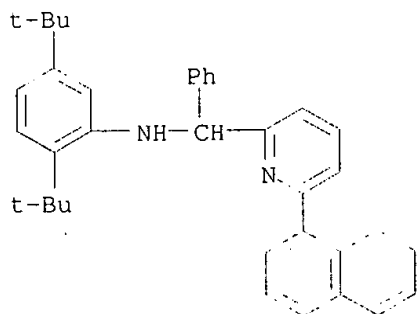
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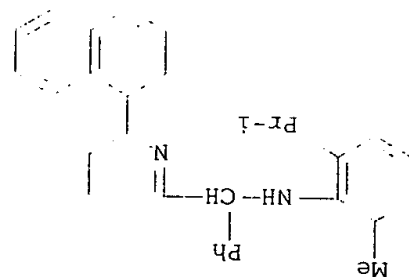
RN 426208-13-1 HCAPLUS
 CN 2-Pyridinemethanamine, N-[2-(1,1-dimethylethyl)phenyl]-6-(1-naphthalenyl)-
 .alpha.-phenyl- (9CI) (CA INDEX NAME)



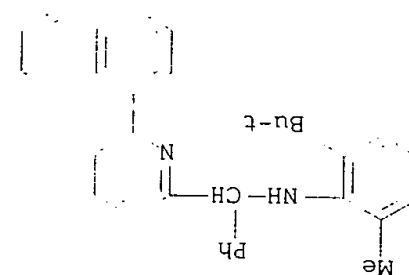
RN 426208-14-2 HCAPLUS
 CN 2-Pyridinemethanamine, N-[2,5-bis(1,1-dimethylethyl)phenyl]-6-(1-naphthalenyl)-.alpha.-phenyl- (9CI) (CA INDEX NAME)



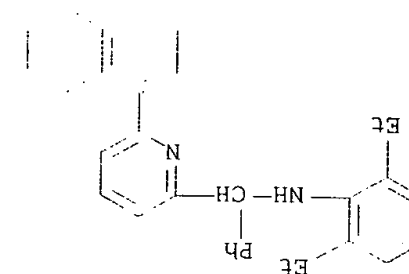
RN 426208-15-3 HCAPLUS
 CN 2-Pyridinemethanamine, N-[2-methyl-6-(1-methylethyl)phenyl]-6-(1-naphthalenyl)-.alpha.-phenyl- (9CI) (CA INDEX NAME)



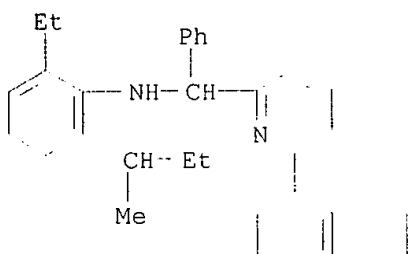
RN 426208-16-4 HCAPLUS
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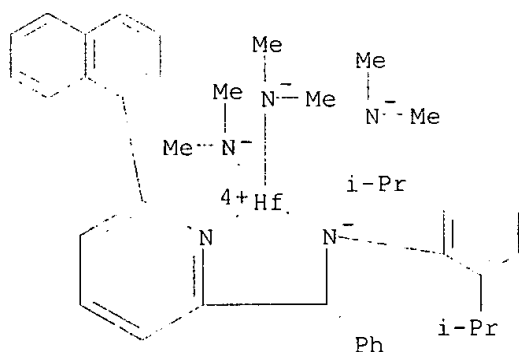
RN 426208-17-5 HCAPLUS
CN 2-Pyridinemethanamine, N-(2,6-diethylphenyl)-6-(1-naphthalenyl)-.alpha. (CA INDEX NAME)



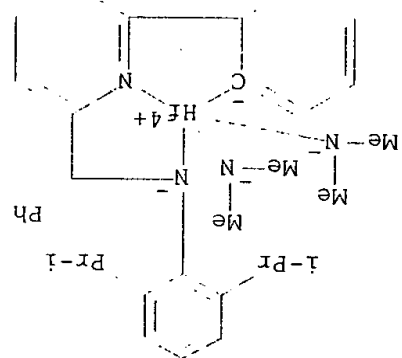
RN 426208-18-6 HCAPLUS
CN 2-Pyridinemethanamine, N-(2-ethyl-6-(1-methylpropyl)phenyl)-6-(1-naphthalenyl)-.alpha. (CA INDEX NAME)



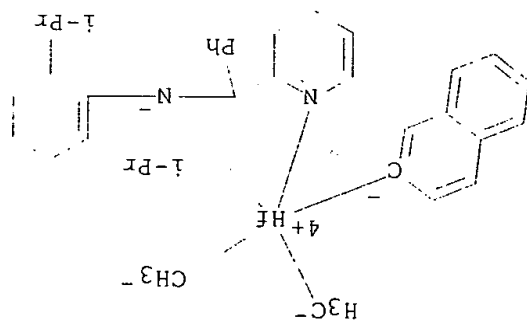
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 426208-34-6P 426208-35-7P 426208-36-8P
 426208-37-9P 426208-38-0P 426208-39-1P
 426208-40-4P 426208-41-5P 426208-42-6P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 (pyridyl amine ligands for hafnium complexes for polymg. olefins)
 RN 426208-19-7 HCAPLUS
 CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-6-(1-naphthalenyl)-.alpha.-
 phenyl-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(N-
 methylmethanaminato)- (9CI) (CA INDEX NAME)



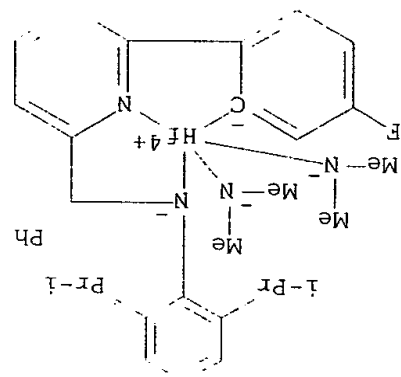
RN 426208-20-0 HCAPLUS
 CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-.alpha.-phenyl-6-(phenyl-
 .kappa.C2)-2-pyridinemethanaminato(2-)-.kappa.N1,.kappa.N2]bis(N-
 methylmethanaminato)- (9CI) (CA INDEX NAME)



RN 426208-22-2 HCAPLUS
 CN Hafnium, [N-2,6-bis(1-methylethyl)phenyl]-6-(1-naphthalenyl)-2-pyridinemethaniminato(2-)-, kappa.N1, kappa.N2]dimethyl-
 (9CI) (CA INDEX NAME)

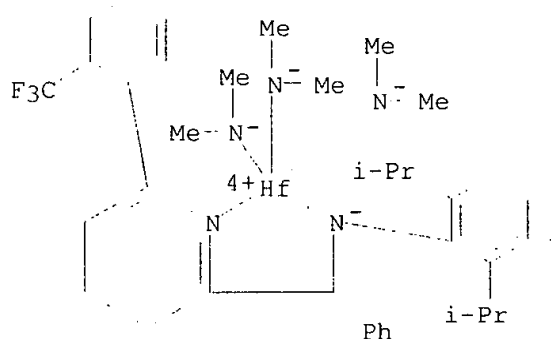


RN 426208-24-4 HCAPLUS
 CN Hafnium, [N-2,6-bis(1-methylethyl)phenyl]-6-(4-fluorophenyl)-2-pyridinemethaniminato(2-)-, kappa.N1, kappa.N2]bis(N-
 methylmethaniminato)- (9CI) (CA INDEX NAME)



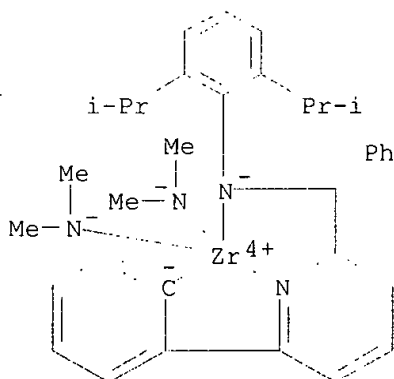
RN 426208-26-6 HCAPLUS

CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-.alpha.-phenyl-6-[2-(trifluoromethyl)phenyl]-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(N-methylmethanaminato)- (9CI) (CA INDEX NAME)



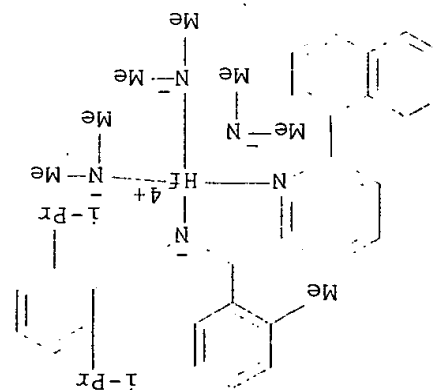
RN 426208-27-7 HCAPLUS

CN Zirconium, [N-[2,6-bis(1-methylethyl)phenyl]-.alpha.-phenyl-6-(phenyl-.kappa.C2)-2-pyridinemethanaminato(2-)-.kappa.N1,.kappa.N2]bis(N-methylmethanaminato)- (9CI) (CA INDEX NAME)

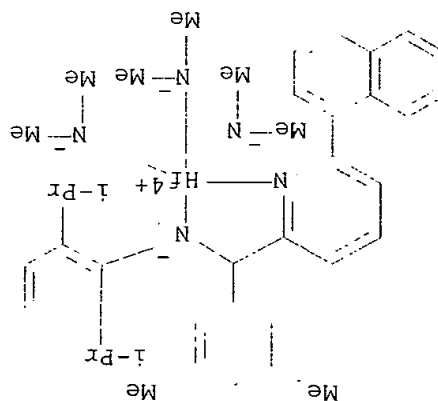


RN 426208-28-8 HCAPLUS

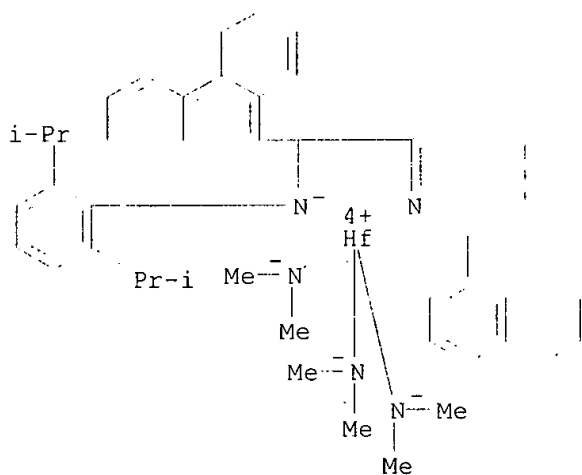
CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-.alpha.-(2-methylphenyl)-6-(1-naphthalenyl)-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(N-methylmethanaminato)- (9CI) (CA INDEX NAME)



RN 426208-29-9 HCAPLUS
 CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-6-(1-naphthalenyl)-2-pyridinylmethanaminato-.kappa.N1,.kappa.N2]tris(N-methylmethanaminato)- (9CI) (CA INDEX NAME)

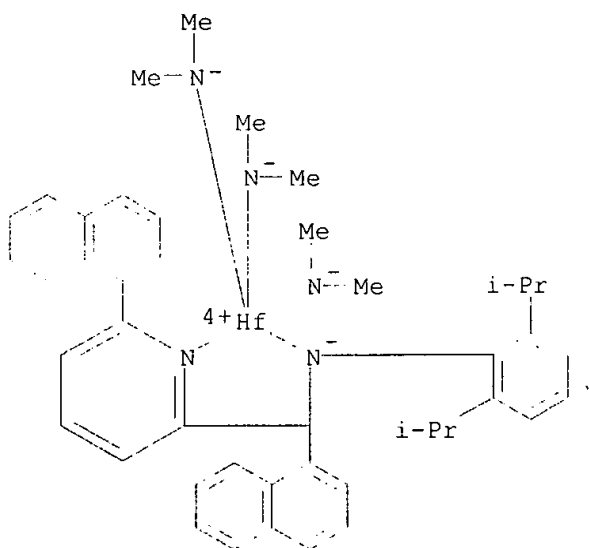


RN 426208-30-2 HCAPLUS
 CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-6-(1-naphthalenyl)-2-pyridinylmethanaminato-.kappa.N1,.kappa.N2]tris(N-methylmethanaminato)- (9CI) (CA INDEX NAME)



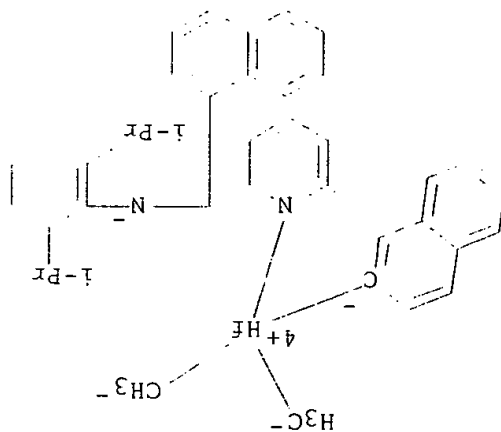
RN 426208-31-3 HCAPLUS

CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-.alpha.,6-di-1-naphthalenyl-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(N-methylmethanaminato)-(9CI) (CA INDEX NAME)



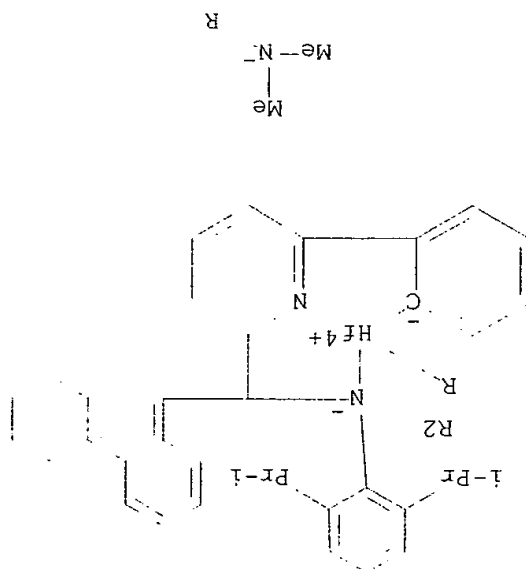
RN 426208-32-4 HCAPLUS

CN Hafnium, [N-[2,6-bis(1-methylethyl)phenyl]-.alpha.-1-naphthalenyl-6-(1-naphthalenyl-2-pyridinemethanaminato(2-)-.kappa.N1,.kappa.N2)dimethyl-(9CI) (CA INDEX NAME)

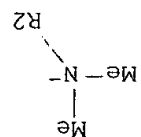


RN 426208-33-5 HCAPLUS
 CN Hafnium, [N-(2,6-bis(1-methylethyl)phenyl)-.alpha.-9-phenanthrenyl]-6-methylmethanimato(2-)-.kappa.N1,.kappa.N2]bis(N-methylmethanimato)-(9CI) (CA INDEX NAME)

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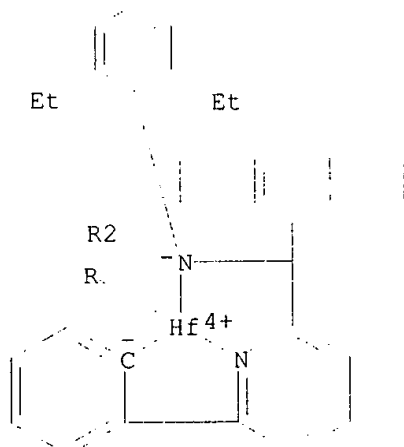


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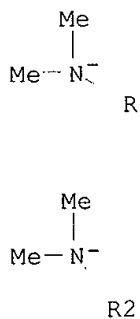


RN 426208-34-6 HCAPLUS
 CN Hafnium, [.alpha.-9-anthracenyl-N-[2,6-bis(1-methylethyl)phenyl]-6-(phenyl-.kappa.C2)-2-pyridinemethanaminato(2-)-.kappa.N1,.kappa.N2]bis(N-methylmethanaminato)- (9CI) (CA INDEX NAME)

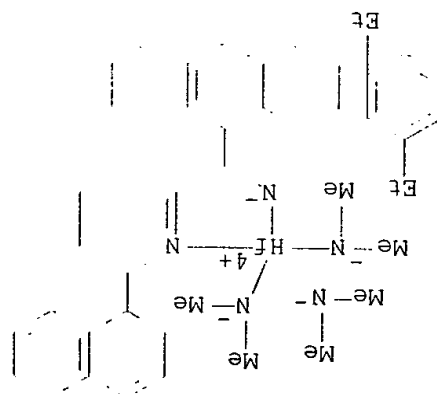
PAGE 1-A



PAGE 2-A

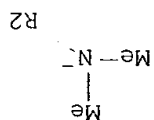
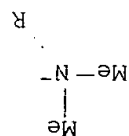
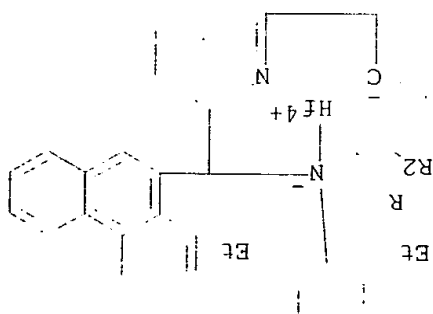


RN 426208-35-7 HCAPLUS
 CN Hafnium, [.alpha.-9-anthracenyl-N-(2,6-diethylphenyl)-6-(1-naphthalenyl)-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(N-methylmethanaminato)- (9CI) (CA INDEX NAME)



RN 426208-36-8 HCAPLUS
 CN Hafnium, [N-(2,6-diethylphenyl)-.alpha.-9-phenanthrenyl]-6-(phenyl-
 .kappa.C2)-2-pyridylmethanamine(2-)-.kappa.N1,.kappa.N2]bis(N-
 methylmethanamine)- (9CI) (CA INDEX NAME)

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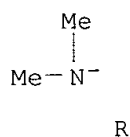
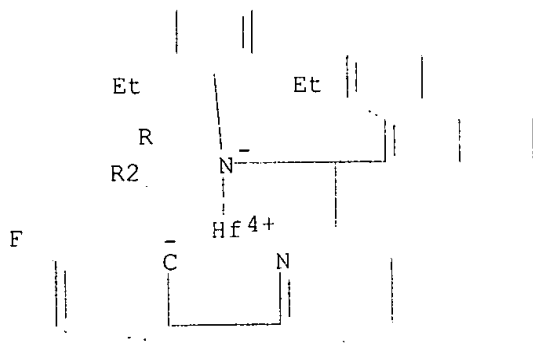
PAGE 2-A

RN 426208-37-9 HCAPLUS

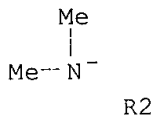
Searched by Susan Hanley 305-4053

CN Hafnium, [N-(2,6-diethylphenyl)-6-(4-fluorophenyl-.kappa.C2)-.alpha.-9-phenanthrenyl-2-pyridinemethanaminato(2-)-.kappa.N1,.kappa.N2]bis(N-methylmethanaminato)-(9CI) (CA INDEX NAME)

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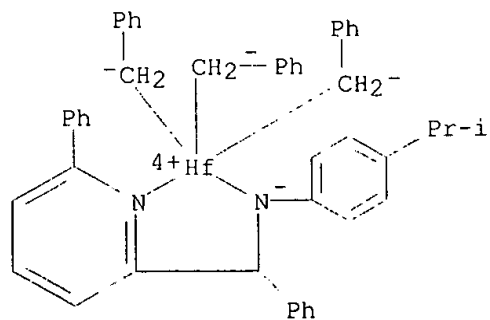


PAGE 2-A

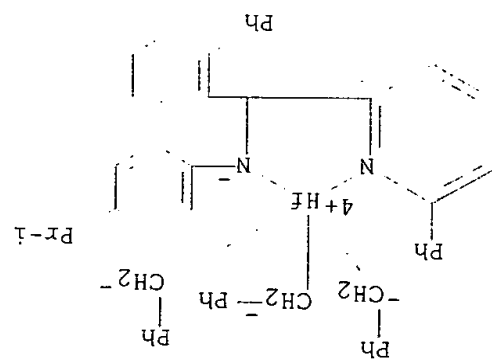


RN 426208-38-0 HCAPLUS

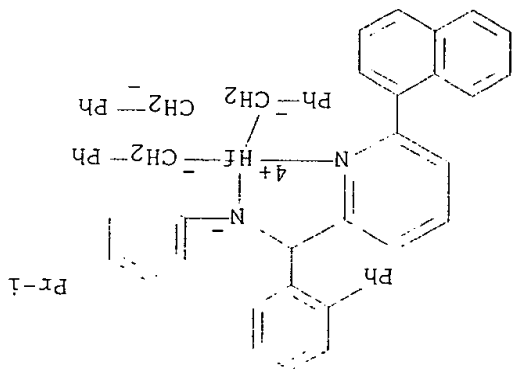
CN Hafnium, [N-[4-(1-methylethyl)phenyl]-.alpha.,6-diphenyl-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(phenylmethyl)-(9CI) (CA INDEX NAME)



RN 426208-39-1 HCAPLUS
 Hafnium, [1,1'-biphenyl]-2-yl-N-[4-(1-methylethyl)phenyl]-6-phenyl-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(phenylethyl)- (9CI) (CA INDEX NAME)

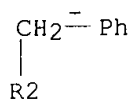
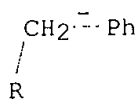
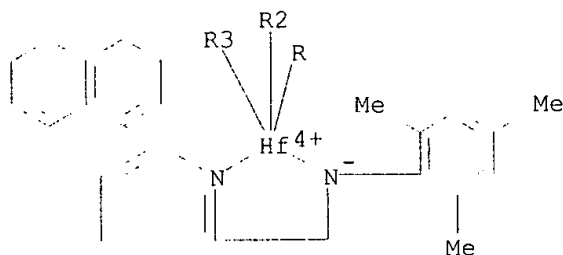


RN 426208-40-4 HCAPLUS
 Hafnium, [1,1'-biphenyl]-2-yl-N-[4-(1-methylethyl)phenyl]-6-(1-naphthalenyl)-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(phenylethyl)- (9CI) (CA INDEX NAME)

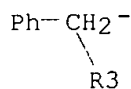


RN 426208-41-5 HCAPLUS
 Hafnium, [6-(1-naphthalenyl)-N-(2,4,6-trimethylphenyl)-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(phenylethyl)- (9CI) (CA INDEX NAME)

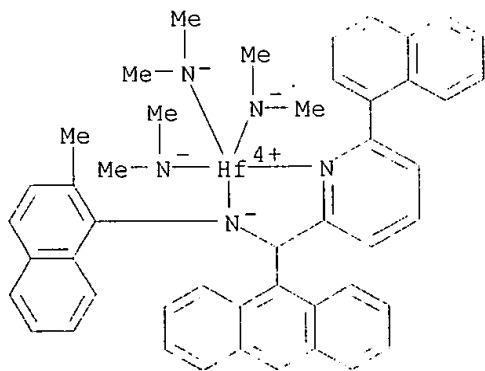
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PAGE 2-A

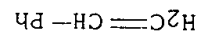


RN 426208-42-6 HCAPLUS
 CN Hafnium, [.alpha.-9-anthracenyl-N-(2-methyl-1-naphthalenyl)-6-(1-naphthalenyl)-2-pyridinemethanaminato-.kappa.N1,.kappa.N2]tris(N-methylmethanaminato)- (9CI) (CA INDEX NAME)



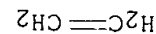
IT 25068-12-6P, Ethylene-styrene copolymer 25085-53-4P,
 Isotactic polypropylene 25639-19-4P, Ethylene-isobutylene

copolymer 26221-73-8P, Ethylene-1-octene copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (pyridyl amine ligands for hafnium complexes for polymg. olefins)
 25068-12-6 HCAPLUS
 CN Benzene, ethenyl-, polymer with ethene (9CI) (CA INDEX NAME)
 CM 1
 CRN 100-42-5
 CMF C8 H8



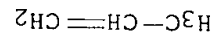
CM 2

CRN 74-85-1
 CMF C2 H4



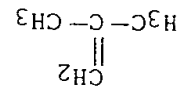
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 CN 1-Propene, homopolymer, isotactic (9CI) (CA INDEX NAME)
 CM 1

CRN 115-07-1
 CMF C3 H6



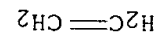
RN 25639-19-4 HCAPLUS
 CN 1-Propene, 2-methyl-, polymer with ethene (9CI) (CA INDEX NAME)
 CM 1

CRN 115-11-7
 CMF C4 H8



CM 2

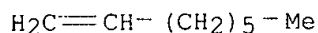
CRN 74-85-1
 CMF C2 H4



RN 26221-73-8 HCAPLUS
 CN 1-Octene, polymer with ethene (9CI) (CA INDEX NAME)

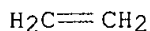
CM 1

CRN 111-66-0
 CMF C8 H16

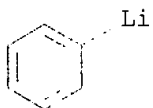


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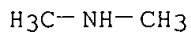
CRN 74-85-1
 CMF C2 H4



IT 591-51-5, Phenyl lithium 19782-68-4,
 Tetrakis(dimethylamino)hafnium 31406-67-4, Hafnium tetrabenzyl
 107954-68-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (pyridyl amine ligands for hafnium complexes for polymg. olefins)
 RN 591-51-5 HCAPLUS
 CN Lithium, phenyl- (8CI, 9CI) (CA INDEX NAME)

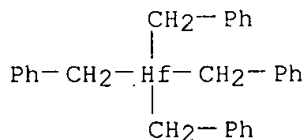


RN 19782-68-4 HCAPLUS
 CN Methanamine, N-methyl-, hafnium(4+) salt (9CI) (CA INDEX NAME)

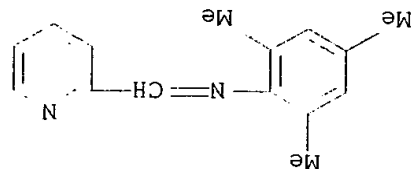


1/4 Hf(IV)

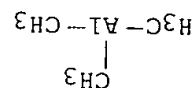
RN 31406-67-4 HCAPLUS
 CN Hafnium, tetrakis(phenylmethyl)- (9CI) (CA INDEX NAME)



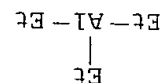
RN 107954-68-7 HCAPLUS
 CN Benzenamine, 2,4,6-trimethyl-N-(2-pyridinylmethylene) - (9CI) (CA INDEX NAME)



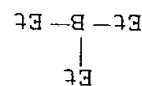
IT 75-24-1, Trimethylaluminum 97-93-8, Triethylaluminum, reactions 97-94-9, Triethyl boron 1191-15-7, Disobutyl aluminum hydride
 RL: RGT (Reagent); RACT (Reactant or reagent)
 (pyridyl amine ligands for hafnium complexes for polymg. olefins)
 RN 75-24-1 HCAPLUS
 CN Aluminum, trimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



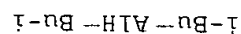
RN 97-93-8 HCAPLUS
 CN Aluminum, triethyl- (8CI, 9CI) (CA INDEX NAME)



RN 97-94-9 HCAPLUS
 CN Borane, triethyl- (8CI, 9CI) (CA INDEX NAME)



RN 1191-15-7 HCAPLUS
 CN Aluminum, hydrobis(2-methylpropyl) - (9CI) (CA INDEX NAME)



IC ICM C08F010-02
 ICS C08F004-64; C08F210-02; C08F210-10
 CC 35-3 (Chemistry of Synthetic High Polymers)
 ST hafnium pyridyl amine ligand complex polym catalyst olefin
 IT Aluminoxanes
 RL: RGT (Reagent); RACT (Reactant or reagent)
 (Me; pyridyl amine ligands for hafnium complexes for polymg. olefins)

- IT Polymerization catalysts
(coordination; pyridyl amine ligands for hafnium complexes for polymg. olefins)
- IT Combinatorial library
(of pyridyl amine ligands and hafnium complexes for polymg. olefins)
- IT Ligands
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(pyridyl amine ligands for hafnium complexes for polymg. olefins)
- IT 118612-00-3, N,N-Dimethylanilinium tetrakis(pentafluorophenyl)bora
te
RL: CAT (Catalyst use); USES (Uses)
(activator; pyridyl amine ligands for hafnium complexes for polymg. olefins)
- IT 383889-18-7P 426207-87-6P 426207-89-8P
426207-91-2P 426207-92-3P 426207-93-4P
426207-94-5P 426207-95-6P 426207-96-7P
426207-97-8P 426207-98-9P 426207-99-0P
426208-00-6P 426208-01-7P 426208-02-8P
426208-03-9P 426208-04-0P 426208-05-1P
426208-06-2P 426208-07-3P 426208-08-4P
426208-09-5P 426208-10-8P 426208-11-9P
426208-12-0P 426208-13-1P 426208-14-2P
426208-15-3P 426208-16-4P 426208-17-5P
426208-18-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(ligand; pyridyl amine ligands for hafnium complexes for polymg. olefins)
- IT 426208-19-7P 426208-20-0P 426208-22-2P
426208-24-4P 426208-26-6P 426208-27-7P
426208-28-8P 426208-29-9P 426208-30-2P
426208-31-3P 426208-32-4P 426208-33-5P
426208-34-6P 426208-35-7P 426208-36-8P
426208-37-9P 426208-38-0P 426208-39-1P
426208-40-4P 426208-41-5P 426208-42-6P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(pyridyl amine ligands for hafnium complexes for polymg. olefins)
- IT 25068-12-6P, Ethylene-styrene copolymer 25085-53-4P,
Isotactic polypropylene 25639-19-4P, Ethylene-isobutylene
copolymer 26221-73-8P, Ethylene-1-octene copolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(pyridyl amine ligands for hafnium complexes for polymg. olefins)
- IT 591-51-5, Phenyl lithium 19782-68-4,
Tetrakis(dimethylamino)hafnium 31406-67-4, Hafnium tetrabenzyl
107954-68-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(pyridyl amine ligands for hafnium complexes for polymg. olefins)
- IT 75-24-1, Trimethylaluminum 97-93-8, Triethylaluminum,
reactions 97-94-9, Triethyl boron 1191-15-7,
Diisobutyl aluminum hydride
RL: RGT (Reagent); RACT (Reactant or reagent)
(pyridyl amine ligands for hafnium complexes for polymg. olefins)

L14 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:221168 HCAPLUS

DOCUMENT NUMBER: 136:263599

TITLE: Combinatorial synthesis and analysis of metal
-ligand compositions using soluble

metal precursors for polymerization catalysts
 Inventor(s): Hall, Keith; Murphy, Vince; Lapointe, Anne M.; Van Beek, Johannes A. M.; Diamond, Gary M.
 Patent Assignee(s): USA
 Source: U.S. Pat. Appl. Publ., 22 pp.
 Document Type: Patent
 Language: English
 Family Acc. Num. Count: 1
 Patent Information:

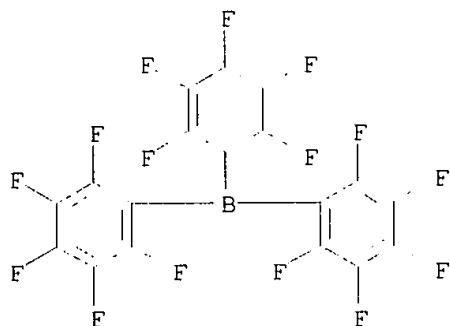
Patent No.	Kind	Date	Application No.	Date
US 2002034829	A1	20020321	US 2001-817821	20010326
US 2000-191933P	P	20000324	US 2000-191933P	20000324

AB The present invention relates to a process of conducting research using combinatorial techniques wherein metal-ligand compounds are synthesized and screened for reactivity in reactions of interest, particularly metal-ligand compounds, which are suitable for use as catalysts. In the process, an array of different metal-ligand compounds is prep'd. by delivering a dissolved, sol. metal precursor and a metal-binding ligand to each reaction vessel or well in the array, where they may optionally be combined with an activator and/or other additives. The resulting metal-ligand compound in each vessel is then screened for reactivity in a chem. reaction of interest, particularly for catalytic activity in a polymer. reaction, esp. olefin polymer.

IT 96-10-6, Diethylaluminumchloride, uses 1109-15-5, Tris(pentafluorophenyl)boron 1191-47-5, Diethylmagnesium 1586-92-1, Diethylaluminummethoxide 14104-20-2, Silver tetrafluoroborate 14637-35-5, Silver tetraphenylborate 118612-00-3 136040-19-2
 RL: CAT (Catalyst use); USES (Uses)
 (activator; combinatorial synthesis and anal. of metal-ligand compounds. using sol. metal precursors for polymer. catalysts)
 96-10-6 HCAPLUS
 CN Aluminum, chlorodideethyl- (8CI, 9CI) (CA INDEX NAME)

C1
 Et-Al-Et

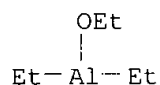
RN 1109-15-5 HCAPLUS
 CN Borane, tris(pentafluorophenyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



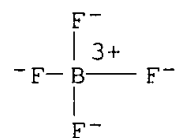
RN 1191-47-5 HCAPLUS
 CN Magnesium, dibutyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

n-Bu⁻Mg⁺Bu-n

RN 1586-92-1 HCAPLUS
 CN Aluminum, ethoxydiethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)

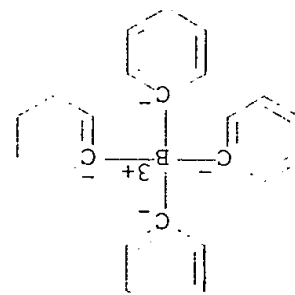


RN 14104-20-2 HCAPLUS
 CN Borate(1-), tetrafluoro-, silver(1+) (8CI, 9CI) (CA INDEX NAME)



Ag(I)⁺

RN 14637-35-5 HCAPLUS
 CN Borate(1-), tetraphenyl-, silver(1+) (8CI, 9CI) (CA INDEX NAME)

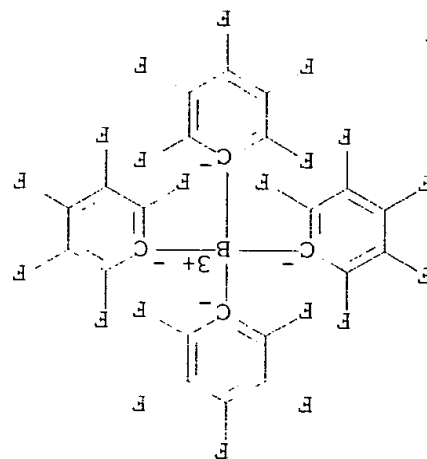


● Ag(I) +

RN 118612-00-3 HCAPLUS
CN Borate(1-), tetrakis(pentafluorophenyl)-, hydrogen, compd. with
N,N-dimethylbenzenamine (1:1) (9CI) (CA INDEX NAME)

CM 1

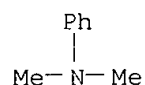
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CMF C24 B F20 . H
CCI CCS



● H⁺

CM 2

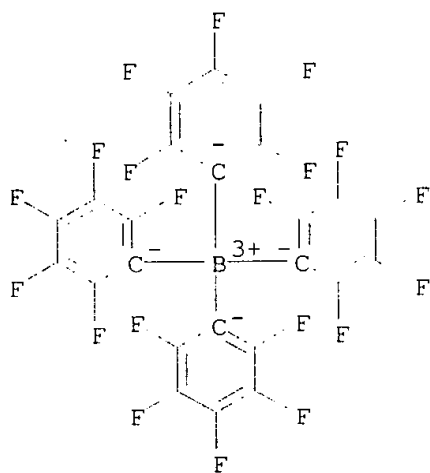
CRN 121-69-7
CMF C8 H11 N



RN 136040-19-2 HCAPLUS
 CN Methylium, triphenyl-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA
 INDEX NAME)

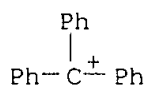
CM 1

CRN 47855-94-7
 CMF C24 B F20
 CCI CCS



CM 2

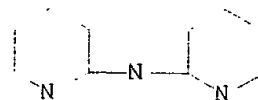
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 CMF C19 H15



IT 1202-34-2 1295-35-8 2552-35-4
 2948-60-9 3020-02-8 3264-82-2
 3275-24-9 3337-06-2 5781-22-6
 6185-58-6 7550-45-0, Titanium chloride (TiCl4) (T-4)-,
 uses 10170-68-0 12012-95-2 12145-00-5
 13476-99-8 13801-49-5 14024-17-0
 14024-18-1 14024-50-1 14024-58-9
 14024-61-4 14689-01-1 15133-82-1
 15604-48-5 16083-14-0 16424-70-7
 16424-90-1 16552-43-5 16570-37-9
 16712-29-1 16753-20-1 17520-19-3
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 19559-06-9 19756-04-8 19782-68-4

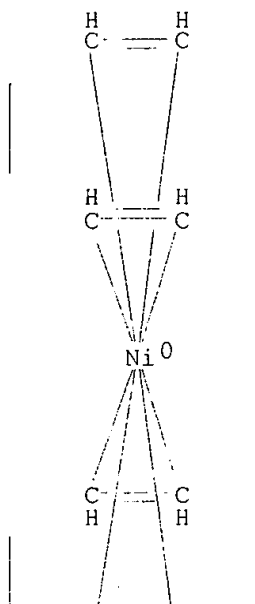
19824-59-0 21679-31-2 21679-46-9
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 31406-67-4 32823-77-1 33541-16-1
 33571-43-6 35788-99-9 36945-13-8
 37512-28-0 38010-72-9 41836-28-6
 50654-35-8 53668-81-8 53668-83-0
 61645-40-7 61716-66-3 63936-85-6
 70969-28-7 70969-29-8 78054-40-7
 79738-18-4 81103-78-8 89085-91-6
 89085-92-7 89085-93-8 89265-08-7
 102732-43-4 113266-70-9 113822-11-0
 117226-83-2 121086-85-9 121118-91-0
 121425-60-3 121471-30-5 122905-76-4
 132709-52-5 158100-80-2 187605-76-1
 223682-02-8 224638-03-3 248955-70-6
 345950-17-6 404962-75-0 404962-76-1
 404962-77-2 404962-78-3 404962-79-4
 404962-80-7 404962-81-8 404962-82-9
 RL: CAT (Catalyst use); USES (Uses)

(combinatorial synthesis and anal. of metal-ligand
 comps. using sol. metal precursors for polymn. catalysts)
 RN 1202-34-2 HCAPLUS
 CN 2-Pyridinamine, N-2-pyridinyl- (9CI) (CA INDEX NAME)

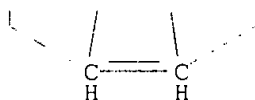


*** FRAGMENT DIAGRAM IS INCOMPLETE ***
 RN 1295-35-8 HCAPLUS
 CN Nickel, bis[(1,2,5,6-eta.)-1,5-cyclooctadiene] - (9CI) (CA INDEX NAME)

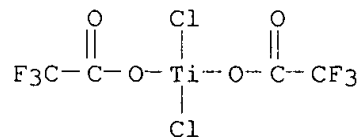
PAGE 1-A



PAGE 2-A

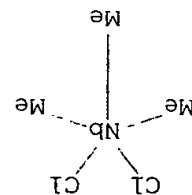


RN 2552-35-4 HCAPLUS

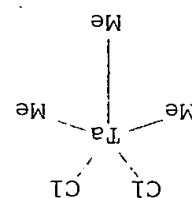
CN Titanium, dichlorobis(trifluoroacetato- κ O)-, (T-4)- (9CI) (CA INDEX NAME)

RN 2948-60-9 HCAPLUS

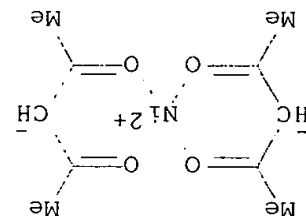
CN Niobium, dichlorotrimethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



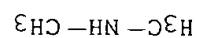
RN 3020-02-8 HCAPLUS
CN Tantalum, dichlorotrimethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 3264-82-2 HCAPLUS
CN Nickel, bis(2,4-pentanedionato-kappa.O',kappa.O')-, (SP-4-1) - (9CI) (CA INDEX NAME)

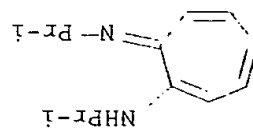


RN 3275-24-9 HCAPLUS
CN Methanamine, N-methyl-, titanium(4+) salt (9CI) (CA INDEX NAME)



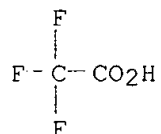
1/4 T1 (IV)

RN 3337-06-2 HCAPLUS
CN 1,3,5-Cycloheptatrien-1-amine, N-(1-methylethyl)-7-[(1-methylethyl)imino]- (9CI) (CA INDEX NAME)



RN 5781-22-6 HCAPLUS

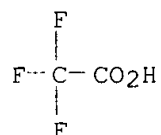
CN Acetic acid, trifluoro-, iron(2+) salt (8CI, 9CI) (CA INDEX NAME)



1/2 Fe(II)

RN 6185-58-6 HCAPLUS

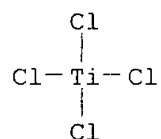
CN Acetic acid, trifluoro-, cobalt(2+) salt (8CI, 9CI) (CA INDEX NAME)



1/2 Co(II)

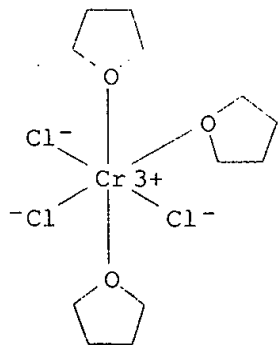
RN 7550-45-0 HCAPLUS

CN Titanium chloride (TiCl₄) (T-4)- (9CI) (CA INDEX NAME)

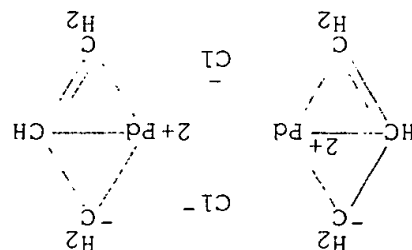


RN 10170-68-0 HCAPLUS

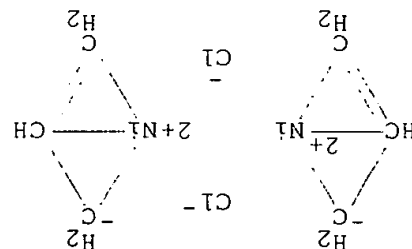
CN Chromium, trichlorotris(tetrahydrofuran)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



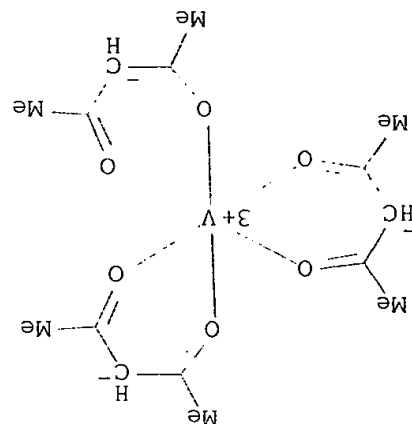
RN 12012-95-2 HCAPLUS
CN Palladium, di- μ -(chlorobis(.eta.3-2-propenyl)di- (9CI) (CA INDEX NAME)



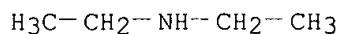
RN 12145-00-5 HCAPLUS
CN Nickel, di- μ -(chlorobis(.eta.3-2-propenyl)di- (9CI) (CA INDEX NAME)



RN 13476-99-8 HCAPLUS
CN Vanadium, tris(2',4'-pentanedionato-.kappa.O,.kappa.O')-, (OC-6-11) - (9CI)
(CA INDEX NAME)



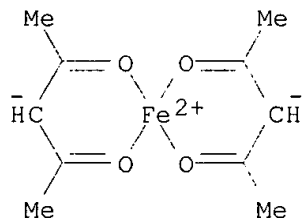
RN 13801-49-5 HCAPLUS
CN Ethanamine, N-ethyl-, zirconium(4+) salt (9CI) (CA INDEX NAME)



● 1/4 Zr(IV)

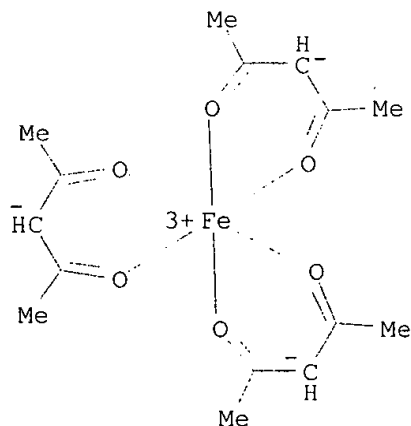
RN 14024-17-0 HCAPLUS

CN Iron, bis(2,4-pentanedionato-.kappa.O,.kappa.O')- (9CI) (CA INDEX NAME)



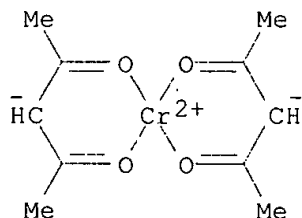
RN 14024-18-1 HCAPLUS

CN Iron, tris(2,4-pentanedionato-.kappa.O,.kappa.O')-, (OC-6-11)- (9CI) (CA INDEX NAME)



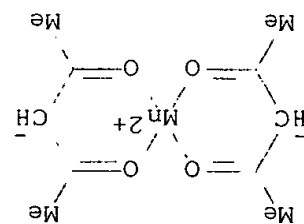
RN 14024-50-1 HCAPLUS

CN Chromium, bis(2,4-pentanedionato-.kappa.O,.kappa.O')-, (SP-4-1)- (9CI) (CA INDEX NAME)

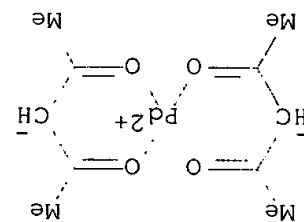


RN 14024-58-9 HCAPLUS

CN Manganese, bis(2,4-pentanedionato- κ .O', κ .O', κ .O')- (9CI) (CA INDEX NAME)

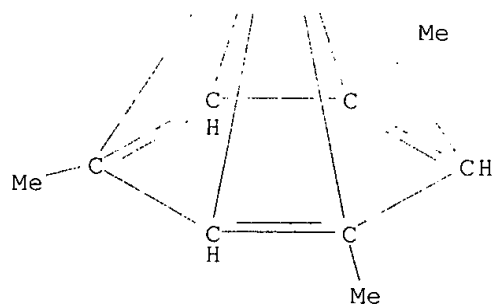
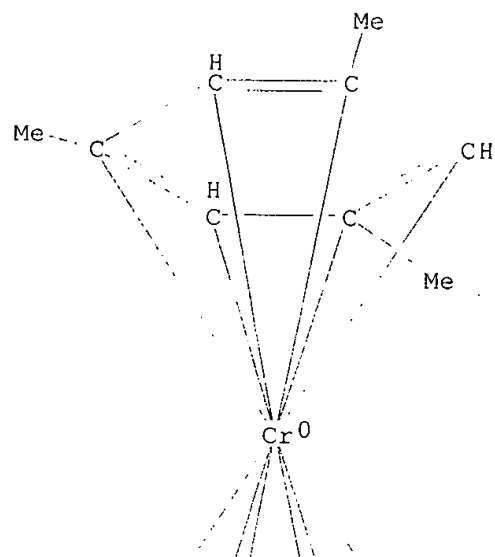


RN 14024-61-4 HCAPLUS
CN Palladium, bis(2,4-pentanedionato- κ .O', κ .O', κ .O')- (SP-4-1) - (9CI)
(CA INDEX NAME)



RN 14689-01-1 HCAPLUS
CN Chromium, bis[(1,2,3,4,5,6- η .)-1,3,5-trimethylbenzene]-, compd. with tetrahydrofuran (1:1) (9CI) (CA INDEX NAME)
CM 1

CRN 1274-07-3
CMF C18 H24 Cr
CCI CCS



CM 2

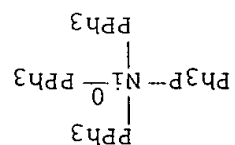
CRN 109-99-9

CMF C4 H8 O

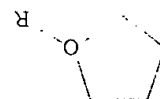
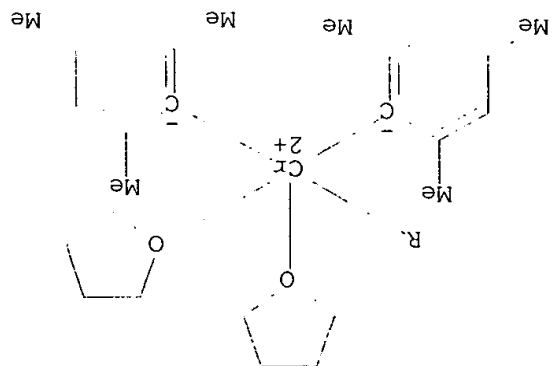


RN 15133-82-1 HCAPLUS

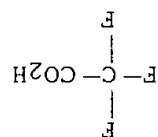
CN Nickel, tetrakis(triphenylphosphine)-, (T-4)- (9CI) (CA INDEX NAME)



RN 15604-48-5 HCAPLUS
 CN Chromium, tris(tetrahydrofuran)bis(2,4,6-trimethylphenyl) - (9CI) (CA INDEX NAME)

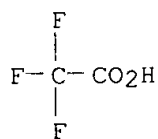


RN 16083-14-0 HCAPLUS
 CN Acetic acid, trifluoro-, nickel(2+) salt (8CI, 9CI) (CA INDEX NAME)



1/2 Ni(II)

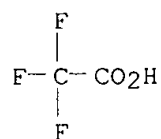
RN 16424-70-7 HCAPLUS
 CN Acetic acid, trifluoro-, zirconium(4+) salt (8CI, 9CI) (CA INDEX NAME)



1/4 Zr(IV)

RN 16424-90-1 HCAPLUS

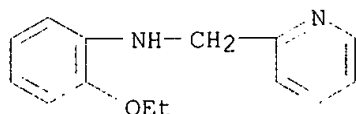
CN Acetic acid, trifluoro-, hafnium(4+) salt (8CI, 9CI) (CA INDEX NAME)



1/4 Hf(IV)

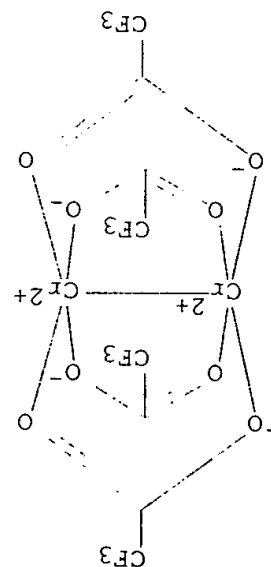
RN 16552-43-5 HCAPLUS

CN 2-Pyridinemethanamine, N-(2-ethoxyphenyl)- (9CI) (CA INDEX NAME)

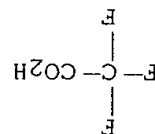


RN 16570-37-9 HCAPLUS

CN Chromium, tetrakis[.mu.-(trifluoroacetato-.kappa.O:.kappa.O')]di-, (Cr-Cr) (9CI) (CA INDEX NAME)

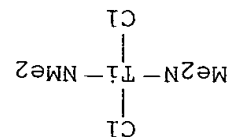


RN 16712-29-1 HCAPLUS
CN Acetic acid, trifluoro-, chromium(3+) salt (8CI, 9CI) (CA INDEX NAME)

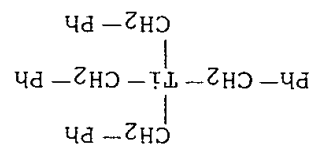


1/3 Cr(III)

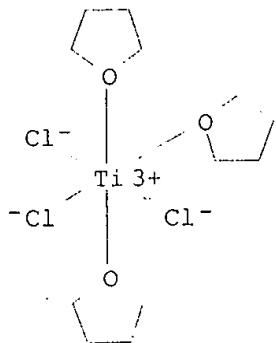
RN 16753-20-1 HCAPLUS
CN Titanium, dichlorobis(N-methylmethanaminato)-, (T-4) - (9CI) (CA INDEX NAME)



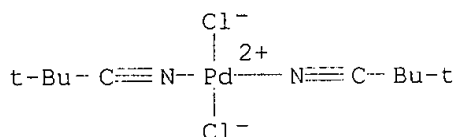
RN 17520-19-3 HCAPLUS
CN Titanium, tetrakis(phenylmethyl)-, (T-4) - (9CI) (CA INDEX NAME)



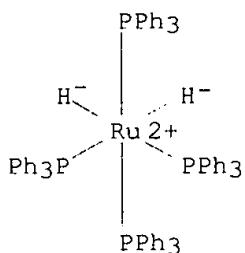
RN 18039-90-2 HCAPLUS
 CN Titanium, trichlorotris(tetrahydrofuran)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



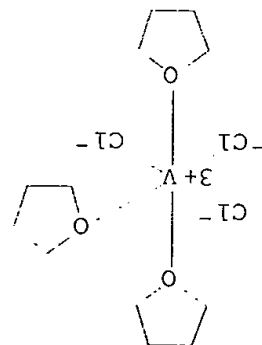
RN 18891-89-9 HCAPLUS
 CN Palladium, dichlorobis(2,2-dimethylpropanenitrile)- (9CI) (CA INDEX NAME)



RN 19529-00-1 HCAPLUS
 CN Ruthenium, dihydrotetrakis(triphenylphosphine)- (8CI, 9CI) (CA INDEX NAME)



RN 19559-06-9 HCAPLUS
 CN Vanadium, trichlorotris(tetrahydrofuran)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 19756-04-8 HCAPLUS
CN Methanamine, N-methyl-, zirconium(4+) salt (9CI) (CA INDEX NAME)

H₃C-NH-CH₃

RN 19782-68-4 HCAPLUS
CN Methanamine, N-methyl-, hafnium(4+) salt (9CI) (CA INDEX NAME)

H₃C-NH-CH₃

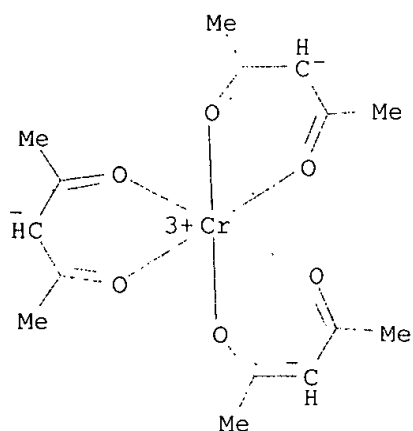
1/4 Hf(IV)

RN 19824-59-0 HCAPLUS
CN Methanamine, N-methyl-, tantalum(5+) salt (9CI) (CA INDEX NAME)

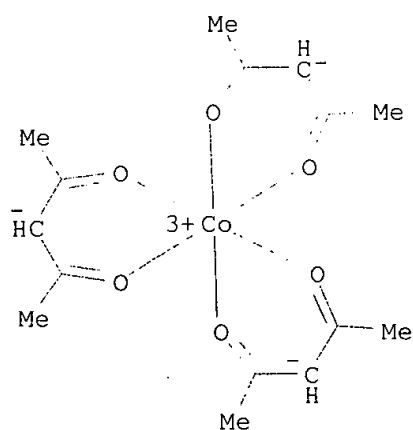
H₃C-NH-CH₃

● 1/5 Ta(V)

RN 21679-31-2 HCAPLUS
CN Chromium, tris(2,4-pentanedionato-κ³O,κ³O,κ³O)-, (OC-6-11)- (9CI)
(CA INDEX NAME)



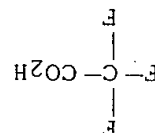
RN 21679-46-9 HCAPLUS
 CN Cobalt, tris(2,4-pentanedionato-.kappa.O,.kappa.O')-, (OC-6-11)- (9CI)
 (CA INDEX NAME)



RN 21729-50-0 HCAPLUS
 CN Nickel, [.mu.-(dinitrogen-.kappa.N:.kappa.N')]tetrakis(tricyclohexylphosphine)di- (9CI) (CA INDEX NAME)

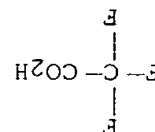
RN 24356-01-2 HCAPLUS
CN Zirconium, tetrakis(phenylmethyl)-, (T-4) - (9CI) (CA INDEX NAME)

1/2 Mn(II)

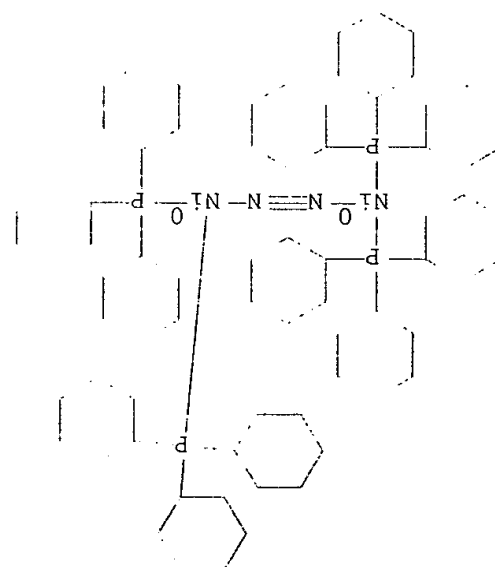


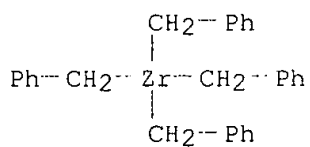
RN 21972-78-1 HCAPLUS
CN Acetic acid, trifluoro-, manganese(2+) salt (8CI, 9CI) (CA INDEX NAME)

1/3 Fe(III)

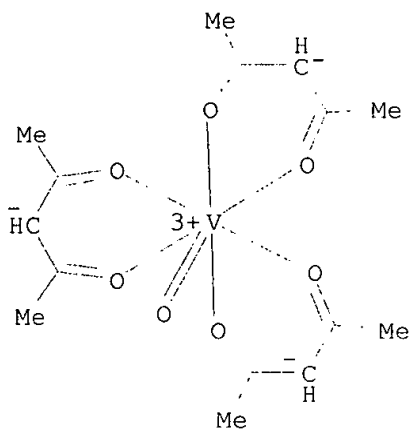


RN 21907-43-7 HCAPLUS
CN Acetic acid, trifluoro-, iron(3+) salt (8CI, 9CI) (CA INDEX NAME)

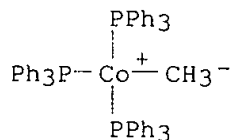




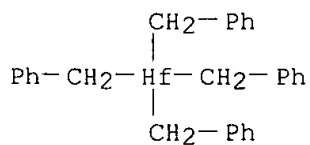
RN 26142-66-5 HCAPLUS
CN Vanadium, oxotris(2,4-pentanedionato-.kappa.O,.kappa.O')- (9CI) (CA INDEX NAME)



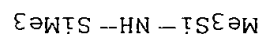
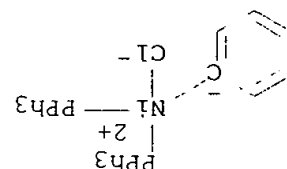
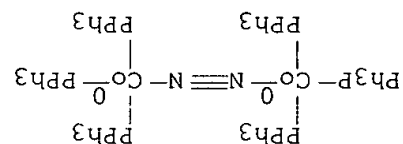
RN 30677-57-7 HCAPLUS
CN Cobalt, methyltris(triphenylphosphine)-, (T-4)- (9CI) (CA INDEX NAME)



RN 31406-67-4 HCAPLUS
CN Hafnium, tetrakis(phenylmethyl)- (9CI) (CA INDEX NAME)

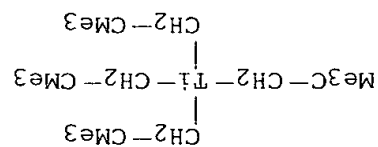


RN 32823-77-1 HCAPLUS
CN Nickel, bis(.eta.3-2-propenyl)bis[.mu.-(trifluoroacetato-.kappa.O:.kappa.O')]di- (9CI) (CA INDEX NAME)

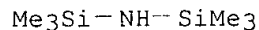


1/3 La(III)

RN 36945-13-8 HCAPLUS
CN Titanium, tetrakis(2,2-dimethylpropyl)-, (T-4)- (9CI) (CA INDEX NAME)

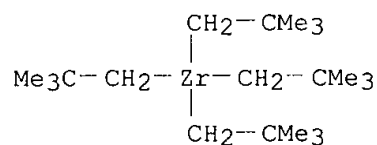


RN 37512-28-0 HCAPLUS
 CN Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, scandium(3+) salt (9CI)
 (CA INDEX NAME)

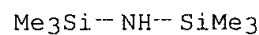


1/3 Sc(III)

RN 38010-72-9 HCAPLUS
 CN Zirconium, tetrakis(2,2-dimethylpropyl)-, (T-4)- (9CI) (CA INDEX NAME)

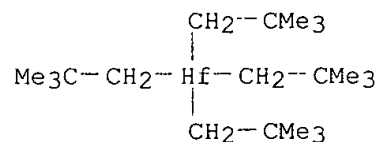


RN 41836-28-6 HCAPLUS
 CN Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, yttrium(3+) salt (9CI)
 (CA INDEX NAME)

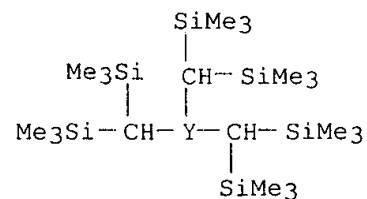


1/3 Y(III)

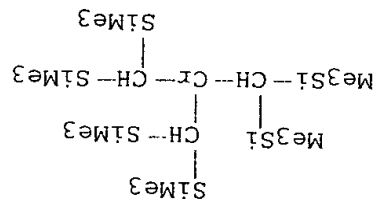
RN 50654-35-8 HCAPLUS
 CN Hafnium, tetrakis(2,2-dimethylpropyl)- (9CI) (CA INDEX NAME)



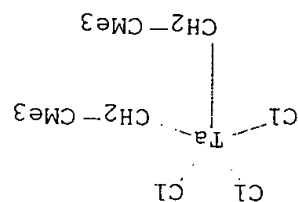
RN 53668-81-8 HCAPLUS
 CN Yttrium, tris[bis(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



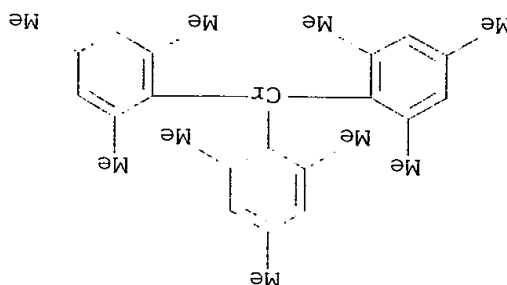
RN 53668-83-0 HCAPLUS
CN Chromium, tris[bis(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



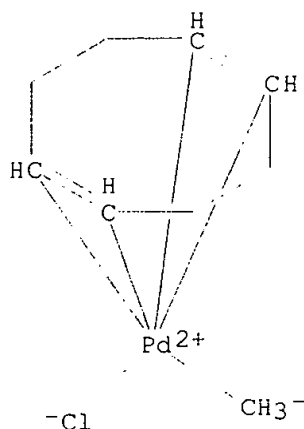
RN 61645-40-7 HCAPLUS
CN Tantalum, trichlorobis(2,2-dimethylpropyl)-, (TB-5-11) - (9CI) (CA INDEX NAME)



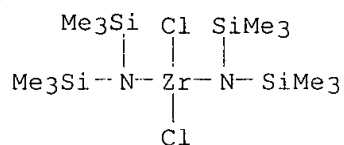
RN 61716-66-3 HCAPLUS
CN Chromium, tris(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



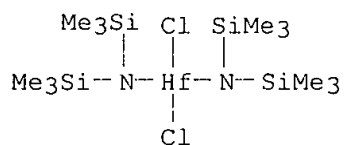
RN 63936-85-6 HCAPLUS
CN Palladium, chloro[(1,2,5,6-eta.)-1,5-cyclooctadiene]methyl- (9CI) (CA INDEX NAME)



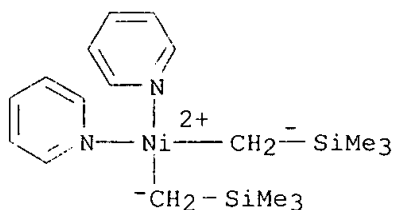
RN 70969-28-7 HCAPLUS
 CN Zirconium, dichlorobis[1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]-,
 (T-4)- (9CI) (CA INDEX NAME)



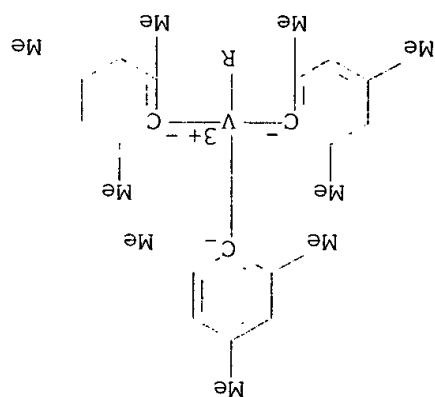
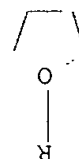
RN 70969-29-8 HCAPLUS
 CN Hafnium, dichlorobis[1,1,1-trimethyl-N-(trimethylsilyl)silanaminato]-
 (9CI) (CA INDEX NAME)



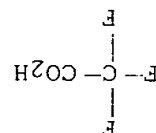
RN 78054-40-7 HCAPLUS
 CN Nickel, bis(pyridine)bis[(trimethylsilyl)methyl]-, (SP-4-2)- (9CI) (CA
 INDEX NAME)



RN 79738-18-4 HCAPLUS
 CN Vanadium, (tetrahydrofuran)tris(2,4,6-trimethylphenyl)-, (T-4)- (9CI) (CA
 INDEX NAME)

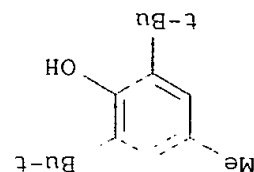


RN 81103-78-8 HCAPLUS
CN Acetic acid, trifluoro-, vanadium(3+) salt (9CI) (CA INDEX NAME)



1/3 V(III)

RN 89085-91-6 HCAPLUS
CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-, scandium(3+) salt (9CI) (CA INDEX NAME)

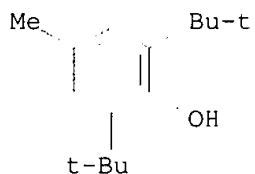


1/3 Sc(III)

RN 89085-92-7 HCAPLUS

Searched by Susan Hanley 305-4053

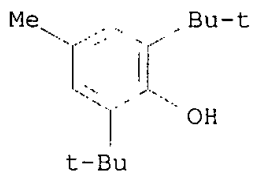
CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-, yttrium(3+) salt (9CI) (CA INDEX NAME)



1/3 Y(III)

RN 89085-93-8 HCAPLUS

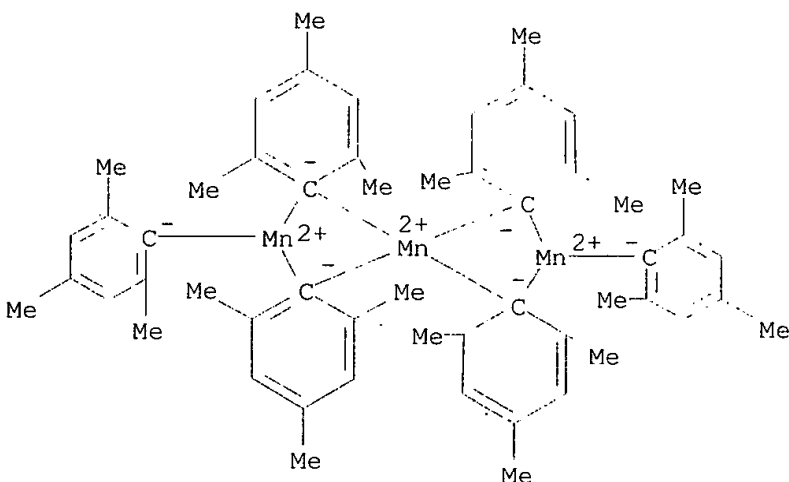
CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-, lanthanum(3+) salt (9CI) (CA INDEX NAME)



1/3 La(III)

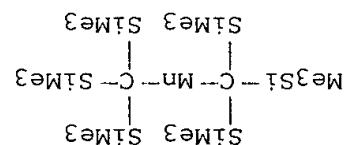
RN 89265-08-7 HCAPLUS

CN Manganese, tetrakis[.mu.-(2,4,6-trimethylphenyl)]bis(2,4,6-trimethylphenyl)tri- (9CI) (CA INDEX NAME)

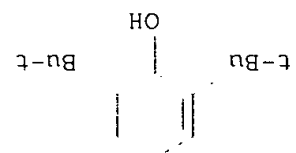


RN 102732-43-4 HCAPLUS

CN Manganese, bis[tris(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)

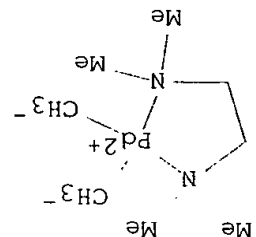


RN 113266-70-9 HCAPLUS Phenol, 2,6-bis(1,1-dimethylethyl)-, yttrium(3+) salt (9CI) (CA INDEX NAME)



1/3 Y(III)

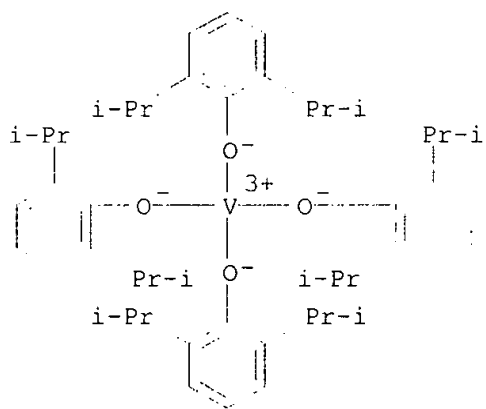
RN 113822-11-0 HCAPLUS Palladium, dimethyl(N,N,N',N'-tetramethyl-1,2-ethanediamine)-kappa.N,.kappa.N')-, (SP-4-2) - (9CI) (CA INDEX NAME)



RN 117226-83-2 HCAPLUS Lithium(1+), (tetrahydrofuran)-, (T-4)-tetrakis[2,6-bis(1-methylethyl)phenolato]vanadate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 117226-82-1
CMF C48 H68 O4 V
CCI CCS

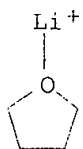


CM 2

CRN 53307-59-8

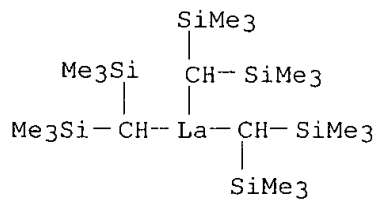
CMF C4 H8 Li O

CCI CCS



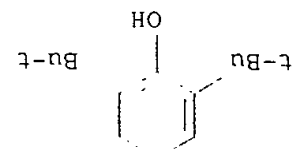
RN 121086-85-9 HCAPLUS

CN Lanthanum, tris[bis(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



RN 121118-91-0 HCAPLUS

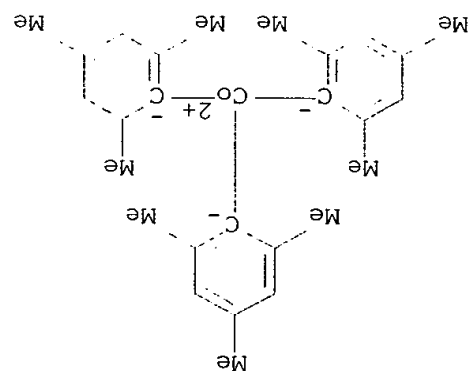
CN Phenol, 2,6-bis(1,1-dimethylethyl)-, lanthanum(3+) salt (9CI) (CA INDEX NAME)



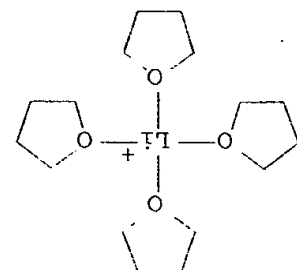
1/3 La(III)

RN 121425-60-3 HCAPLUS
CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, tris(2,4,6-trimethylphenyl)cobaltate(1-) (9CI) (CA INDEX NAME)

CM 1
CRN 121425-59-0
CMF C27 H33 Co
CCI CCS

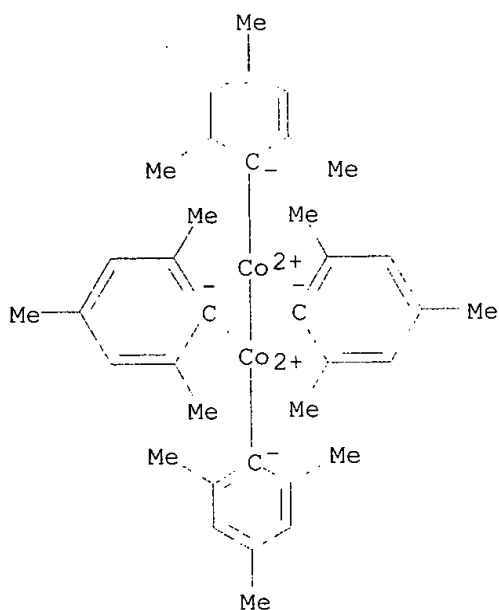


CM 2
CRN 48186-27-2
CMF C16 H32 Li O4
CCI CCS



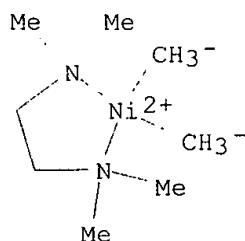
RN 121471-30-5 HCAPLUS

CN Cobalt, bis[.mu.-(2,4,6-trimethylphenyl)]bis(2,4,6-trimethylphenyl)di-,
(Co-Co) (9CI) (CA INDEX NAME)



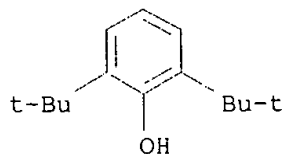
RN 122905-76-4 HCAPLUS

CN Nickel, dimethyl(N,N,N',N'-tetramethyl-1,2-ethanediamine-
.kappa.N,.kappa.N')-, (SP-4-2)- (9CI) (CA INDEX NAME)



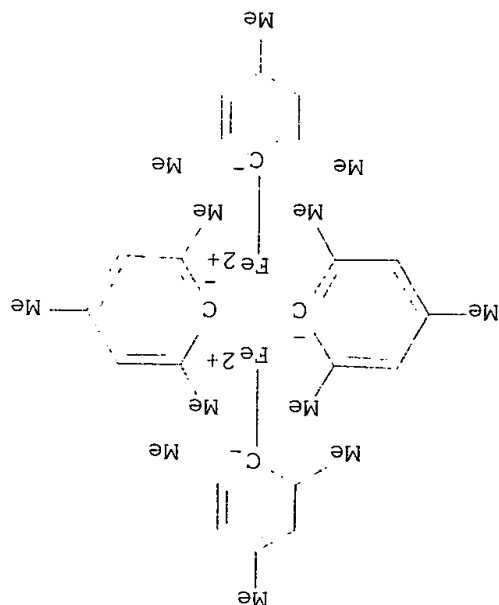
RN 132709-52-5 HCAPLUS

CN Phenol, 2,6-bis(1,1-dimethylethyl)-, scandium(3+) salt (9CI) (CA INDEX
NAME)

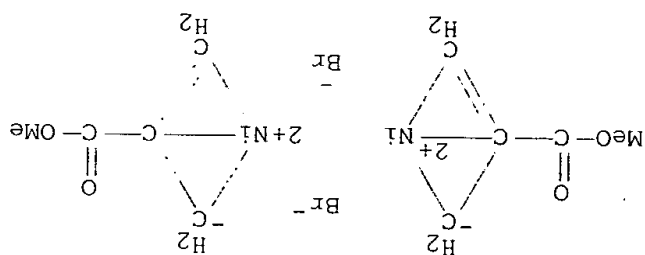


1/3 Sc(III)

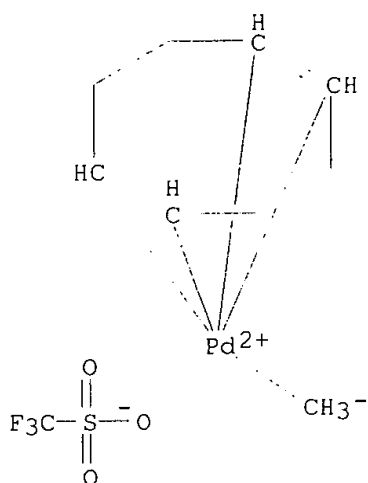
RN 158100-80-2 HCAPLUS
CN Iron, bis[.mu.-(2,4,6-trimethylphenyl)]bis(2,4,6-trimethylphenyl)di- (9CI)
(CA INDEX NAME)



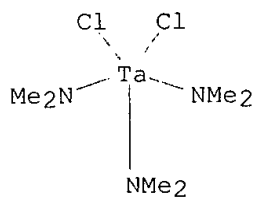
RN 187605-76-1 HCAPLUS
CN Nickel, di-.mu.-bromobis[(1,2,3-.eta.)-2-(methoxycarbonyl)-2-propenyl]di- (9CI)
(CA INDEX NAME)



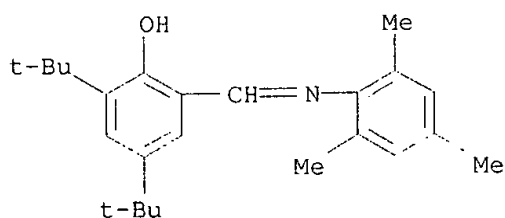
RN 223682-02-8 HCAPLUS
CN Palladium, [(1,2,5,6-.eta.)-1,5-cyclooctadiene]methyl(trifluoromethanesulfonate-.kappa.O)- (9CI)
(CA INDEX NAME)



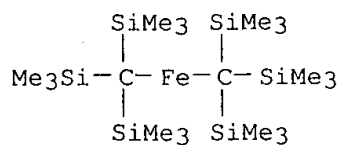
RN 224638-03-3 HCAPLUS
 CN Tantalum, dichlorotris(N-methylmethanaminato)- (9CI) (CA INDEX NAME)



RN 248955-70-6 HCAPLUS
 CN Phenol, 2,4-bis(1,1-dimethylethyl)-6-[[(2,4,6-trimethylphenyl)imino]methyl]- (9CI) (CA INDEX NAME)

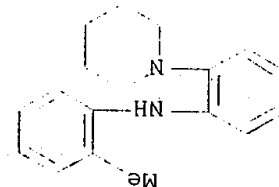


RN 345950-17-6 HCAPLUS
 CN Iron, bis[tris(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)

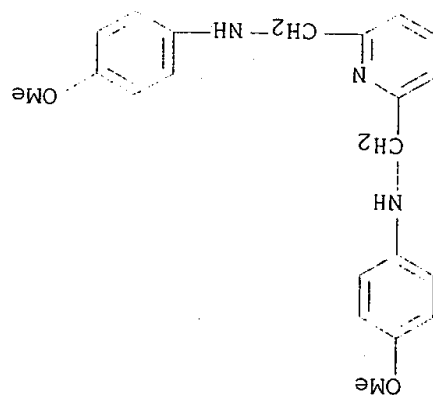


RN 404962-75-0 HCAPLUS

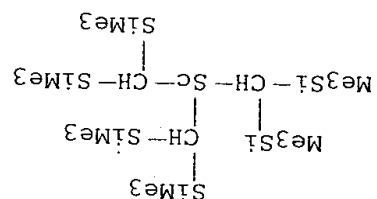
CN Benzenamine, N-(2-methylphenyl)-2-(1-piperidinyl) - (9CI) (CA INDEX NAME)



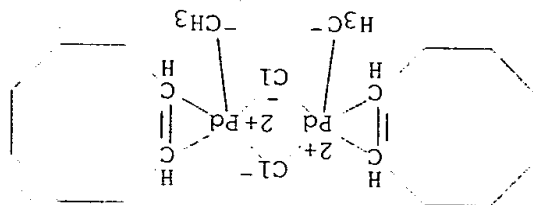
RN 404962-76-1 HCAPLUS
CN 2,6-Pyridinedimethanamine, N,N'-bis(4-methoxyphenyl) - (9CI) (CA INDEX NAME)



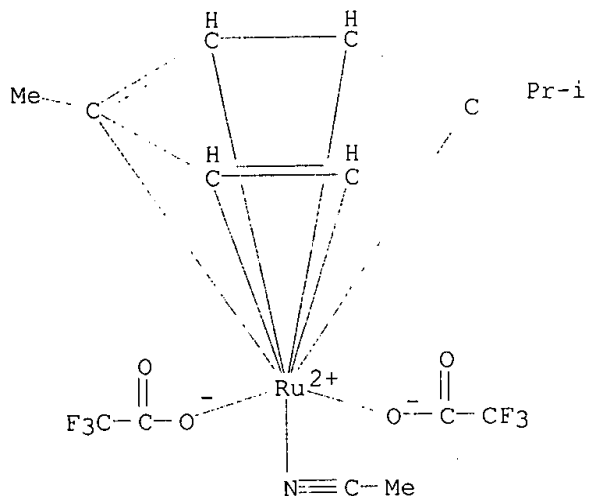
RN 404962-77-2 HCAPLUS
CN Scandium, tris[bis(trimethylsilyl)methyl] - (9CI) (CA INDEX NAME)



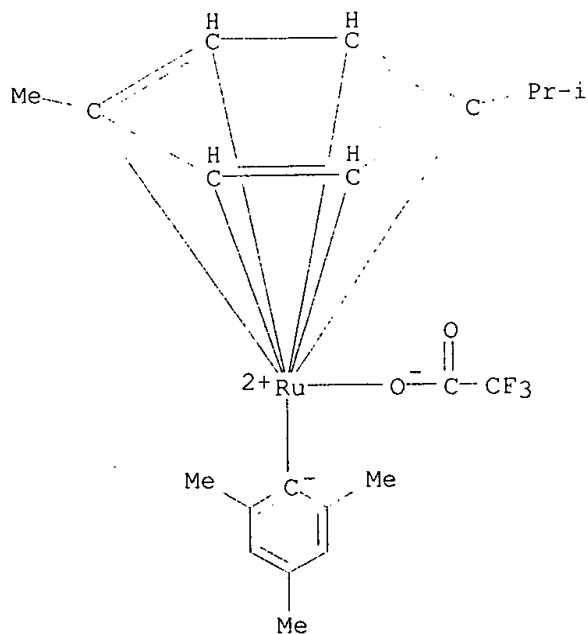
RN 404962-78-3 HCAPLUS
CN Palladium, di-μ.-chlorobis[(1,2-eta.)-cyclooctene]dimethyldi - (9CI) (CA INDEX NAME)



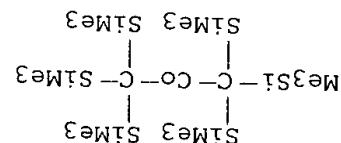
RN 404962-79-4 HCAPLUS
 CN Ruthenium, (acetonitrile)[(1,2,3,4,5,6-eta.)-1-methyl-4-(1-methylethyl)benzene]bis(trifluoroacetato-.kappa.O)- (9CI) (CA INDEX NAME)



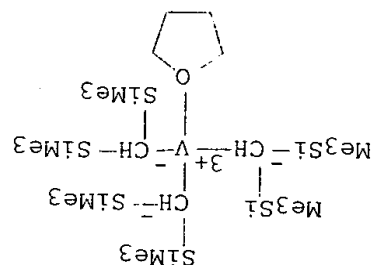
RN 404962-80-7 HCAPLUS
 CN Ruthenium, [(1,2,3,4,5,6-eta.)-1-methyl-4-(1-methylethyl)benzene](trifluoroacetato-.kappa.O)(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



RN 404962-81-8 HCAPLUS
 CN Cobalt, bis[tris(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



RN	HCAPLUS	Vanadium, tris[bis(trimethylsilyl)methyl](tetrahydrofuran)-, (T-4) - (9CI)	(CA INDEX NAME)
CN			



IC	ICM G01N033-543
NCL	ICS C08F004-06 436518000
CC	35-3 (Chemistry of Synthetic High Polymers)
ST	combinatorial synthesis ligand soluble metal precursor
IT	Aluminoxanes polymn catalyst
IT	(Me, activator; combinatorial synthesis and anal. of metal-ligand compns. using sol. metal precursors for polymn. catalysts) Polymerization catalysts Combinatorial chemistry
IT	(combinatorial synthesis and anal. of metal-ligand compns. using sol. metal precursors for polymn. catalysts) 96-10-6, Diethylaluminumchloride, uses 1109-15-5, Tris(pentafluorophenyl)boron 1191-47-5, Dibutylmagnesium 1586-92-1, Diethylaluminummethoxide 14104-20-2, Silver tetrafluoroborate 14637-35-5, Silver tetraphenylborate 118612-00-3 136040-19-2 RL: CAT (Catalyst use); USES (Uses)
IT	(activator; combinatorial synthesis and anal. of metal-ligand compns. using sol. metal precursors for polymn. catalysts) 1202-34-2 1295-35-8 2552-35-4 2948-60-9 3020-02-8 3264-82-2 3275-24-9 3337-06-2 5781-22-6 6185-58-6 7550-45-0, Titanium chloride (TiCl ₄) (T-4)-, uses 10170-68-0 12012-95-2 12145-00-5 13476-99-8 13801-49-5 14024-17-0 14024-18-1 14024-50-1 14024-58-9 14024-61-4 14689-01-1 15133-82-1 15604-48-5 16083-14-0 16424-70-7 16424-90-1 16552-43-5 16570-37-9 16712-29-1 16753-20-1 17520-19-3 18039-90-2 18891-89-9 19529-00-1

19559-06-9 19756-04-8 19782-68-4
 19824-59-0 21679-31-2 21679-46-9
 21729-50-0 21907-43-7 21972-78-1
 24356-01-2 26142-66-5 30677-57-7
 31406-67-4 32823-77-1 33541-16-1
 33571-43-6 35788-99-9 36945-13-8
 37512-28-0 38010-72-9 41836-28-6
 50654-35-8 53668-81-8 53668-83-0
 61645-40-7 61716-66-3 63936-85-6
 70969-28-7 70969-29-8 78054-40-7
 79738-18-4 81103-78-8 89085-91-6
 89085-92-7 89085-93-8 89265-08-7
 102732-43-4 113266-70-9 113822-11-0
 117226-83-2 121086-85-9 121118-91-0
 121425-60-3 121471-30-5 122905-76-4
 132709-52-5 158100-80-2 187605-76-1
 223682-02-8 224638-03-3 248955-70-6
 345950-17-6 404962-75-0 404962-76-1
 404962-77-2 404962-78-3 404962-79-4
 404962-80-7 404962-81-8 404962-82-9

RL: CAT (Catalyst use); USES (Uses)

(combinatorial synthesis and anal. of **metal-ligand**
 compns. using sol. **metal** precursors for polymn. catalysts)

L14 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:11121 HCAPLUS

DOCUMENT NUMBER: 136:70258

TITLE: Processes for polymerization catalysts, metal
 complexes and compositions containing erbium

INVENTOR(S): **Diamond, Gary M.; Murphy, Vince;**
 Leclerc, Margarete K.; Goh, Christopher; **Hall,**
Keith A.; Lapointe, Anne Marie; Boussie, Thomas;
 Lund, Cheryl

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002002257	A1	20020103	US 2001-780704	20010209
US 2002013224	A1	20020131	US 2001-781104	20010208

PRIORITY APPLN. INFO.: US 2000-181123P P 20000208

OTHER SOURCE(S): MARPAT 136:70258

AB Processes for polymn. of monomers, particularly olefins, into polymers use
 erbium compns., **metal-ligand** complexes and compns.

The processes proceed with good conversion in a no. of different methods.
 Thus, a catalyst system contg. Er(CH(SiMe₃)₂)₃, 2,3-dihydrido-2,2-dimethyl-
 7-benzofuranol (ligand), AlEt₃, and triphenylcarbenium
 tetrakis(pentafluorophenyl)borate was used to prep. ethylene-1-octene
 copolymer.

IT 97-93-8, Triethylaluminum, uses 1191-15-7,
 Diisobutylaluminum hydride 118612-00-3 136040-19-2,
 Triphenylcarbenium tetrakis(pentafluorophenyl)borate 285995-71-3

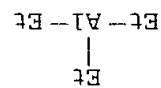
RL: CAT (Catalyst use); USES (Uses)

(catalysts contg. erbium metal complexes for olefin polymn.)

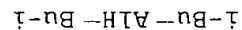
RN 97-93-8 HCAPLUS

TRAN 09/817,821

CN Aluminum, triethyl- (8CI, 9CI) (CA INDEX NAME)



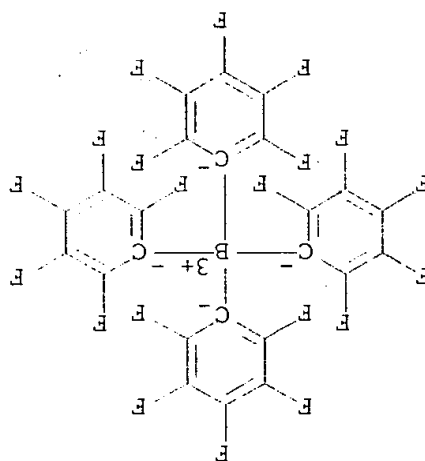
RN 1191-15-7 HCAPLUS
CN Aluminum, hydrobis(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 118612-00-3 HCAPLUS
CN Borate(1-), tetrakis(pentafluorophenyl)-, hydrogen, compd. with
N,N-dimethylbenzenamine (1:1) (9CI) (CA INDEX NAME)

CM 1

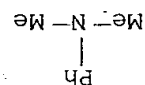
CRN 118611-98-6
CMF C24 B F20 . H
CCI CCS



● H+

CM 2

CRN 121-69-7
CMF C8 H11 N

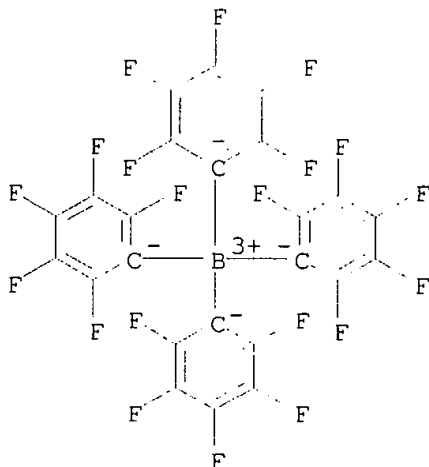


Searched by Susan Hanley 305-4053

RN 136040-19-2 HCAPLUS
 CN Methylium, triphenyl-, tetrakis(pentafluorophenyl)borate(1-) (9CI) (CA INDEX NAME)

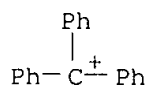
CM 1

CRN 47855-94-7
 CMF C24 B F20
 CCI CCS

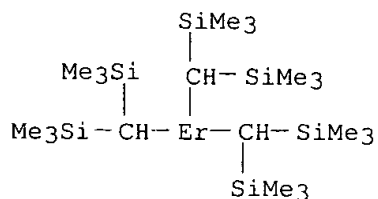


CM 2

CRN 13948-08-8
 CMF C19 H15



RN 285995-71-3 HCAPLUS
 CN Erbium, tris[bis(trimethylsilyl)methyl]- (9CI) (CA INDEX NAME)



IT 26221-73-8P, Ethylene-1-octene copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (catalysts contg. erbium metal complexes for olefin polymn.)
 RN 26221-73-8 HCAPLUS

CN 1-Octene, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 111-66-0
CMF C8 H16

H₂C=CH-(CH₂)₅-Me

CM 2

CRN 74-85-1
CMF C2 H4

H₂C=CH₂

IT 1563-38-8, 2,3-dihydro-2,2-dimethyl-7-benzofuranol

383889-16-5 383889-17-6 383889-18-7

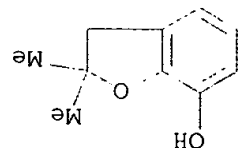
RL: CAT (Catalyst use); USES (uses)

(ligand; catalysts contg. erbium metal complexes

for olefin polymn.)

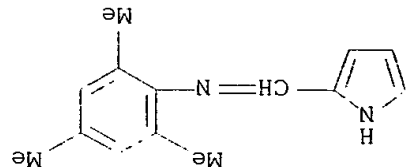
RN 1563-38-8 HCAPLUS

CN 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



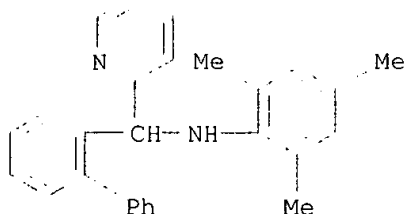
RN 383889-16-5 HCAPLUS

CN Benzenamine, 2,4,6-trimethyl-N-(1H-pyrrol-2-ylmethylene) - (9CI) (CA INDEX NAME)

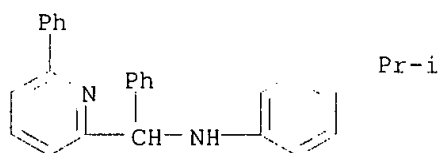


RN 383889-17-6 HCAPLUS

CN 2-Pyridinemethanamine, .alpha.-[1,1'-biphenyl]-2-yl-N-(2,4,6-trimethylphenyl) - (9CI) (CA INDEX NAME)



RN 383889-18-7 HCAPLUS
 CN 2-Pyridinemethanamine, N-[4-(1-methylethyl)phenyl]-.alpha.,6-diphenyl-
 (9CI) (CA INDEX NAME)



IC ICM C08F004-72
 ICS C08F004-06
 NCL 526170000
 CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 67
 ST erbium metal complex ethylene octene polymn; **ligand** erbium
metal complex olefin polymn
 IT Polymerization catalysts
 (catalysts contg. erbium metal complexes for olefin polymn.)
 IT Polyolefins
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (catalysts contg. erbium metal complexes for olefin polymn.)
 IT 97-93-8, Triethylaluminum, uses 1191-15-7,
 Diisobutylaluminum hydride 118612-00-3 136040-19-2,
 Triphenylcarbenium tetrakis(pentafluorophenyl)borate 285995-71-3
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts contg. erbium metal complexes for olefin polymn.)
 IT 26221-73-8P, Ethylene-1-octene copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (catalysts contg. erbium metal complexes for olefin polymn.)
 IT 1563-38-8, 2,3-Dihydro-2,2-dimethyl-7-benzofuranol
 383889-16-5 383889-17-6 383889-18-7
 RL: CAT (Catalyst use); USES (Uses)
 (**ligand**; catalysts contg. erbium **metal** complexes
 for olefin polymn.)

L14 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:747859 HCAPLUS

DOCUMENT NUMBER: 135:289200

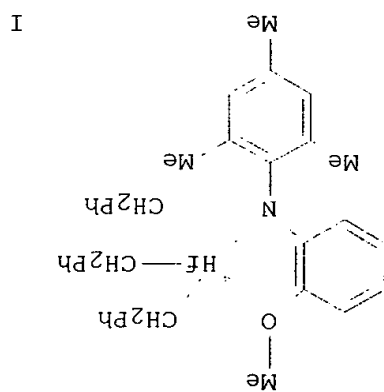
TITLE: Ether-amine **ligand/metal** complex
 polymerization catalysts, compositions, and use for
 olefin polymerization

INVENTOR(S): Goh, Christopher; **Diamond**, Gary M.;
Murphy, Vince; Leclerc, Margarete K.;
Hall, Keith; Lapointe, Anne M.; Boussie,
 Thomas R.; Lund, Cheryl; Uno, Tetsuo

PATENT ASSIGNEE(S): Symyx Technologies, Inc., USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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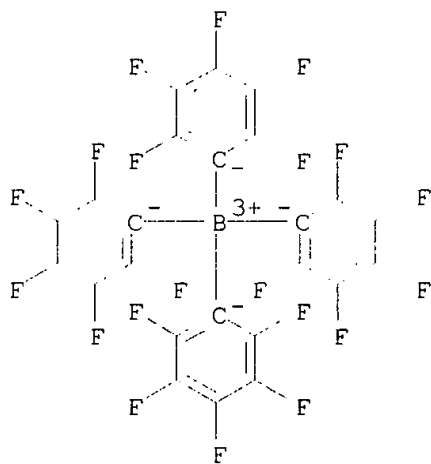
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US 2002049288 A1 20020425 US 2001-825746 P 20010403				
PRIORITY APPLN. INFO.: US 2000-194650P P 200000404				
OTHER SOURCE(S): MARPAT 135:289200				



AB Catalysts comprise metal-ligand complexes or comps. of metal precursors and ligands (and optionally activators) that catalyze polym. and copolym. reactions, particularly with monomers that are olefins, diolefins or acetylenically unsatd. monomers. These comps. can also polymerize monomers that have polar functionalities. Thus, C₂H₄ and 1-octene were polymd. at 130.degree. for 1 h in the presence of AlEt₃, dimethylaluminum tetrakis(pentafluorophenyl)borate activator, and complex I (2 .mu.mol Hf) to give 109 mg 71:29 copolymer. 118612-00-3, Dimethylaluminum tetrakis(pentafluorophenyl)borate (Catalyst use); USES (Uses) (activator; ether-amine ligand/metal complex polymn. catalyst for olefin polymn.) 118612-00-3 HCAPLUS Borate(1-), tetrakis(pentafluorophenyl)-, hydrogen, compd. with N,N-dimethylbenzenamine (1:1) (9CI) (CA INDEX NAME)

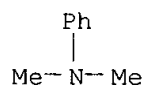
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CRN 118611-98-6
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 CCI CCS

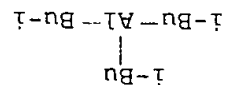
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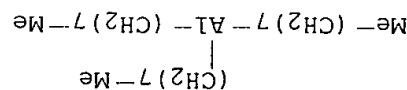
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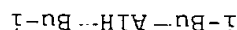
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 365424-76-6 365424-78-8 365424-81-3
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 365424-91-5 365424-92-6
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 for olefin polymn.)
 RN 100-99-2 HCAPLUS
 CN Aluminum, tris(2-methylpropyl)- (9CI) (CA INDEX NAME)



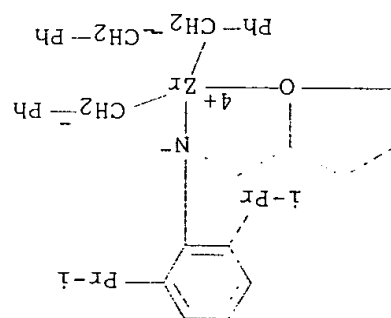
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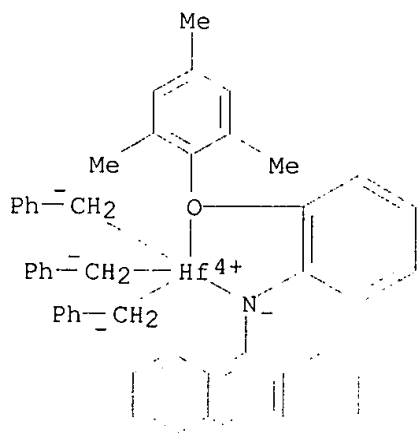
RN 1191-15-7 HCAPLUS
CN Aluminum, hydrobis(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 219863-12-4 HCAPLUS
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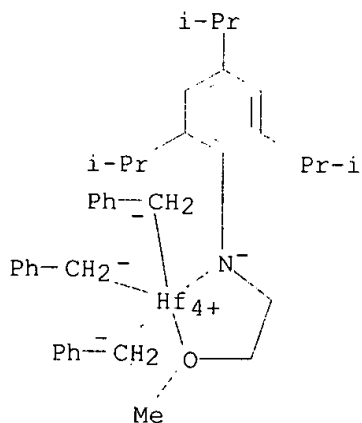


RN 365424-70-0 HCAPLUS
CN Hafnium, tris(phenylethyl)[N-(2,4,6-trimethylphenoxy-kappa.O)phenyl]-9-anthracenaminato-kappa.N)- (9CI) (CA INDEX NAME)



RN 365424-72-2 HCAPLUS

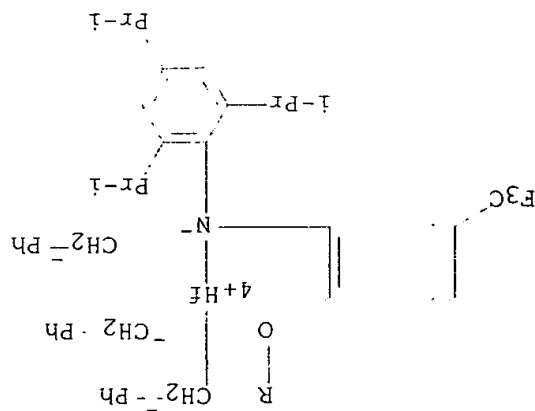
CN Hafnium, [N-[2-(methoxy-.kappa.O)ethyl]-2,4,6-tris(1-methylethyl)benzenaminato-.kappa.N]tris(phenylmethyl)- (9CI) (CA INDEX NAME)



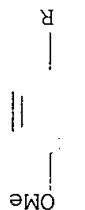
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CN Hafnium, [N-[2-(4-methoxyphenoxy-.kappa.O)-5-(trifluoromethyl)phenyl]-2,4,6-tris(1-methylethyl)benzenaminato-.kappa.N]tris(phenylmethyl)- (9CI) (CA INDEX NAME)

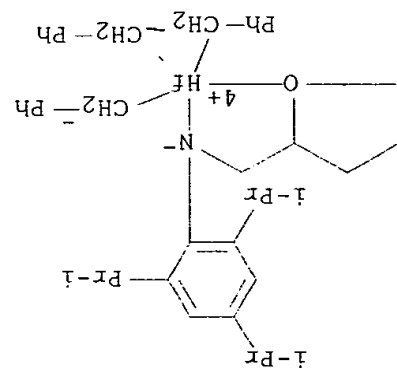
PAGE 1-A



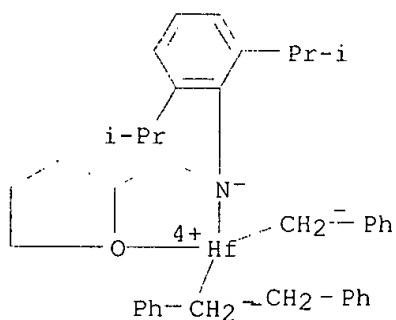
PAGE 2-A



RN 365424-76-6 HCAPLUS
 Hafnium, tris(phenylmethyl) [tetrahydro-N-[2,4,6-tris(1-methyl)phenyl]-2-furanmethanaminate-.kappa.N2,.kappa.O1] - (9CI) (CA INDEX NAME)

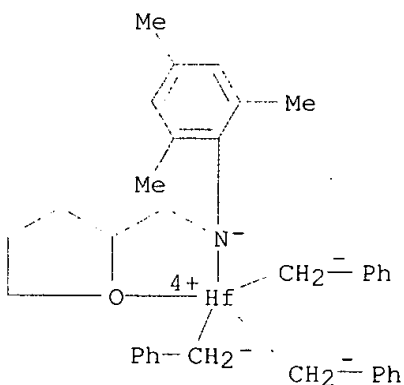


RN 365424-78-8 HCAPLUS
 Hafnium, [N-[2,6-bis(1-methyl)phenyl]tetrahydro-2-furanmethanaminate-.kappa.N2,.kappa.O1]tris(phenylmethyl) - (9CI) (CA INDEX NAME)



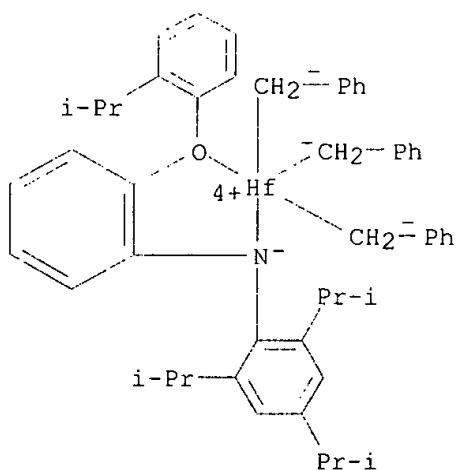
RN 365424-81-3 HCAPLUS

CN Hafnium, tris(phenylmethyl)[tetrahydro-N-(2,4,6-trimethylphenyl)-2-furanmethanaminato-.kappa.N2,.kappa.O1]- (9CI) (CA INDEX NAME)

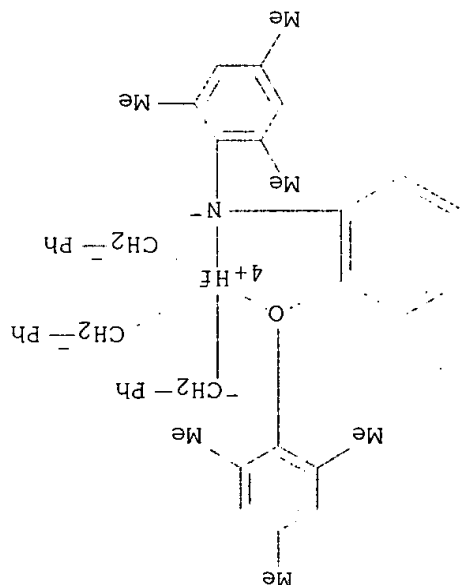


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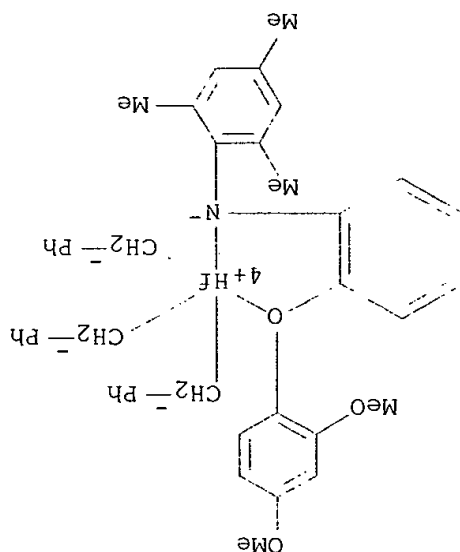
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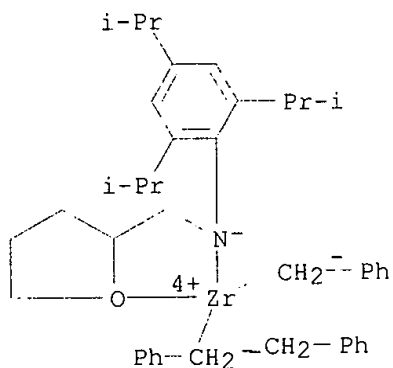
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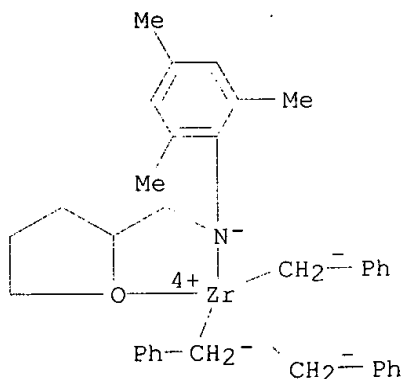
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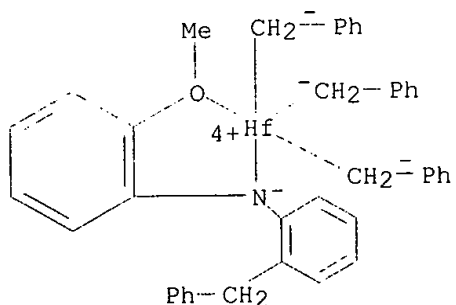
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 INDEX NAME)



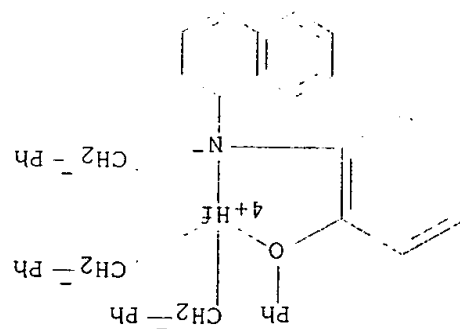
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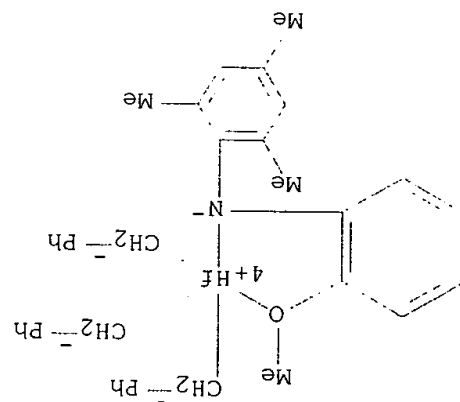
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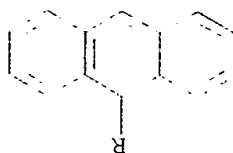
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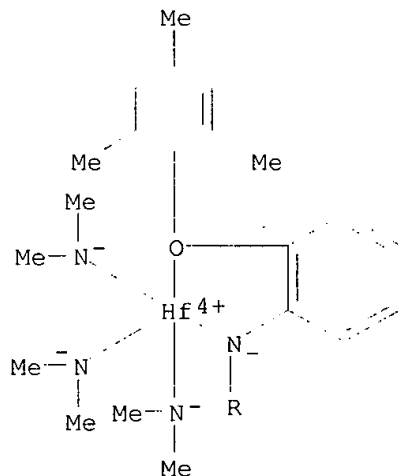
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 CN Hafnium, [N-(2-(methoxy-.kappa.O)phenyl]-2,4,6-trimethylbenzenaminato-.kappa.N]tris(phenylmethyl) - (9CI) (CA INDEX NAME)



IT 365424-93-7P
 RT: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 (ether-amine ligand/metal complex polymn. catalyst
 for olefin polymn.)
 RN 365424-93-7 HCAPLUS
 CN Hafnium, tris(N-methylmethanaminato)[N-(2-(2,4,6-trimethylphenoxy-.kappa.O)phenyl]-9-anthracenaminato-.kappa.N] - (9CI) (CA INDEX NAME)



PAGE 1-A



IT 9003-07-0P, Polypropylene 26221-73-8P, Ethylene-1-octene copolymer

RL: IMF (Industrial manufacture); PREP (Preparation)
(ether-amine ligand/metal complex polymn. catalyst
for olefin polymn.)

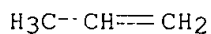
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CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

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CRN 115-07-1

CMF C3 H6



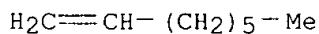
RN 26221-73-8 HCAPLUS

CN 1-Octene; polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 111-66-0

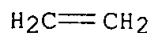
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CM 2

CRN 74-85-1

CMF C2 H4



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 Section cross-reference(s): 29
 ST hafnium arow ether amine catalyst; ethylene octene
 IT copolymer catalyst
 IT Polymerization catalysts
 IT (ether-amine ligand/metal complex polymn. catalyst
 for olefin polymn.)
 IT 118612-00-3, Dimethylaluminum tetrakis(pentafluorophenyl)borate
 RL: CAT (Catalyst use); USES (Uses)
 (activator; ether-amine ligand/metal complex
 polymn. catalyst for olefin polymn.)
 IT 100-99-2, uses 1070-00-4, Tri-n-octylaluminum
 1191-15-7, Diisobutylaluminum hydride 219863-12-4
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 365424-88-0 365424-89-1 365424-90-4
 365424-91-5 365424-92-6
 RL: CAT (Catalyst use); USES (Uses)
 (ether-amine ligand/metal complex polymn. catalyst
 for olefin polymn.)
 IT 365424-93-7P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 (ether-amine ligand/metal complex polymn. catalyst
 for olefin polymn.)
 IT 9003-07-0P, Polypropylene 26221-73-8P, Ethylene-1-octene
 copolymer
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (ether-amine ligand/metal complex polymn. catalyst
 for olefin polymn.)
 L14 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:87740 HCAPLUS
 DOCUMENT NUMBER: 128:141181
 TITLE: Combinatorial synthesis and analysis of organometallic
 compounds and olefin polymerization catalysts
 INVENTOR(S): Weinberg, W. Henry; McFarland, Eric; Goldwasser, Isy;
 Bous sie, Thomas; Turner, Howard; Van Beek,
 Johannes A. M.; Murphy, Vince; Powers,
 Timothy; et al.
 PATENT ASSIGNEE(S): Symyx Technologies, USA; Weinberg, W. Henry;
 McFarland, Eric; Goldwasser, Isy; Bous sie, Thomas;
 Turner, Howard; Van Beek, Johannes A. M.; Murphy,
 Vince; Powers, Timothy
 PCT Int. Appl., 106 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 20
 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 9803521 A1 19980129 WO 1997-US13312 19970722

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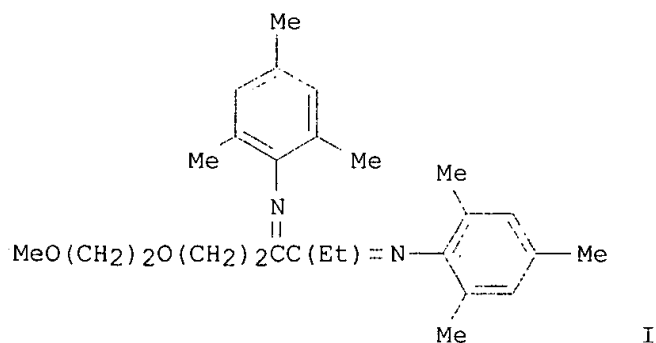
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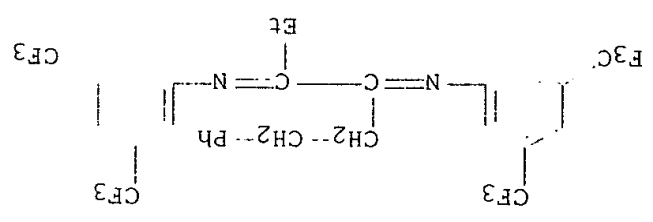


AB Libraries of unsupported and supported **metal-ligand** compds., useful for homogeneous and heterogeneous olefin polymn. catalysts, resp., are manufd. by combinatorial synthesis. Thus, complexation of diimine I with (DME)NiBr₂ in 24 h in CH₂Cl₂ gave a product, and polymn. of ethylene gas 2.25 h in PhMe in the presence of MAO gave 1.38 g polymer.

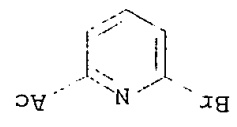
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 (catalyst precursor; combinatorial synthesis and anal. of

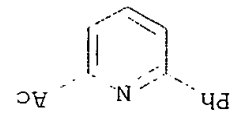
RN 202405-46-7 HCAPLUS
organometallic comps. and olefin polymn. catalysts)
CN Benzenamine, N,N'-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediyliidene]bis[3,5-bis(trifluoromethyl)- (9CI) (CA INDEX NAME)



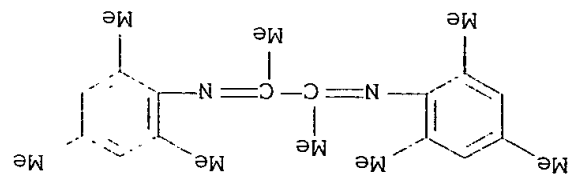
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2-Acetyl-6-phenylpyridine 202277-65-4P 202405-40-1P
202405-43-4P 202405-47-8P 202405-48-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(catalyst precursor; combinatorial synthesis and anal. of
organometallic comps. and olefin polymn. catalysts)
RN 49669-13-8 HCAPLUS
CN Ethanone, 1-(6-bromo-2-pyridinyl)- (9CI) (CA INDEX NAME)



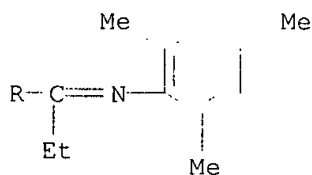
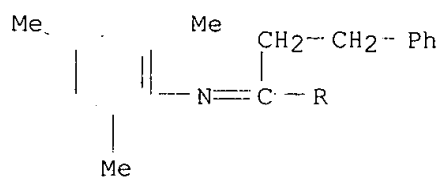
RN 59576-29-3 HCAPLUS
CN Ethanone, 1-(6-phenyl-2-pyridinyl)- (9CI) (CA INDEX NAME)



RN 202277-65-4 HCAPLUS
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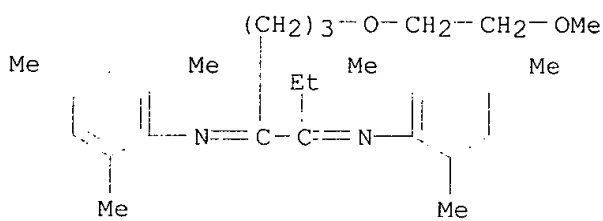


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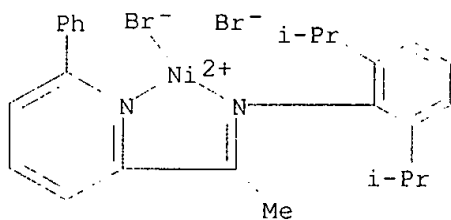
RN 202405-43-4 HCAPLUS

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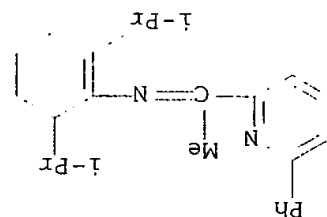
RN 202405-47-8 HCAPLUS

CN Nickel, [2,6-bis(1-methylethyl)-N-[1-(6-phenyl-2-pyridinyl-.kappa.N)ethylidene]benzenamine-.kappa.N]dibromo- (9CI) (CA INDEX NAME)

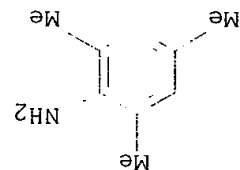


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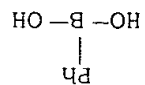
CN Benzenamine, 2,6-bis(1-methylethyl)-N-[1-(6-phenyl-2-pyridinyl)ethylidene]- (9CI) (CA INDEX NAME)



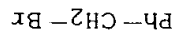
IT 88-05-1, 2,4,6-Trimethylaniline 98-80-6, Phenylboronic acid 100-39-0, Benzyl bromide 109-72-8, Butyllithium, reactions 328-74-5, 3,5-Bis(trifluoromethyl)aniline 431-03-8, 2,3-Butanedione 626-05-1, 2,6-Dibromopyridine 1034-39-5, Triphenylphosphine dibromide 24544-04-5, 2,6-Diisopropylaniline 54149-17-6, 1-(2-Bromoethoxy)-2-methoxyethane 152757-13-6, 1-Phenyl-3,4-hexanedione 202405-42-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (catalyst precursor; combinatorial synthesis and anal. of organometallic comps. and olefin polymn. catalysts)
 CN 88-05-1 HCAPLUS
 Benzenamine, 2,4,6-trimethyl- (9CI) (CA INDEX NAME)



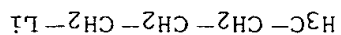
RN 98-80-6 HCAPLUS
 CN Boronic acid, phenyl- (9CI) (CA INDEX NAME)



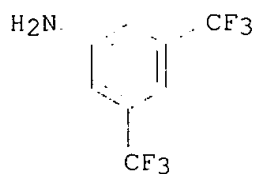
RN 100-39-0 HCAPLUS
 CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)



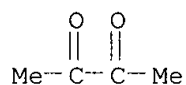
RN 109-72-8 HCAPLUS
 CN Lithium, butyl- (8CI, 9CI) (CA INDEX NAME)



RN 328-74-5 HCAPLUS
 CN Benzenamine, 3,5-bis(trifluoromethyl)- (9CI) (CA INDEX NAME)



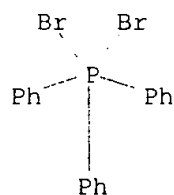
RN 431-03-8 HCAPLUS
CN 2,3-Butanedione (8CI, 9CI) (CA INDEX NAME)



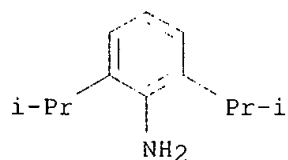
RN 626-05-1 HCAPLUS
CN Pyridine, 2,6-dibromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



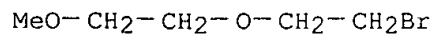
RN 1034-39-5 HCAPLUS
CN Phosphorane, dibromotriphenyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



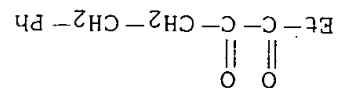
RN 24544-04-5 HCAPLUS
CN Benzenamine, 2,6-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



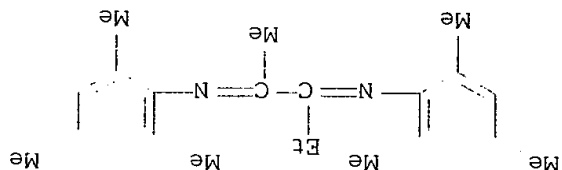
RN 54149-17-6 HCAPLUS
CN Ethane, 1-(2-bromoethoxy)-2-methoxy- (9CI) (CA INDEX NAME)



RN 152757-13-6 HCAPLUS
CN 3,4-Hexanedione, 1-phenyl- (9CI) (CA INDEX NAME)



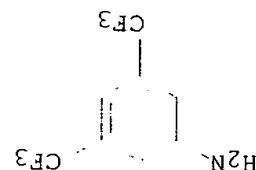
RN 202405-42-3 HCAPLUS
CN Benzenamine, N,N'-(1-ethyl-2-methyl-1,2-ethanediyliidene)bis[2,4,6-trimethyl]- (9CI) (CA INDEX NAME)



IT 328-74-5DP, 3,5-Bis(trifluoromethyl)aniline, imines with diketo

derivs. of polystyrene, metal complexes 7440-02-ODP, Nickel, complexes with diimine derivs. of polystyrene, preparation 7440-05-3DP, Palladium, complexes with diimine derivs. of polystyrene, preparation 9003-53-6DP, Polystyrene, diimine derivs., metal complexes 202405-39-8P 202405-41-2P 202405-44-5P 202405-45-6P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(combinatorial synthesis and anal. of organometallic compds. and olefin polymn. catalysts)
RN 328-74-5 HCAPLUS
CN Benzenamine, 3,5-bis(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 7440-02-0 HCAPLUS
CN Nickel (8CI, 9CI) (CA INDEX NAME)

NI

RN 7440-05-3 HCAPLUS
CN Palladium (8CI, 9CI) (CA INDEX NAME)

PD

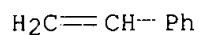
RN 9003-53-6 HCAPLUS

CN Benzene, ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

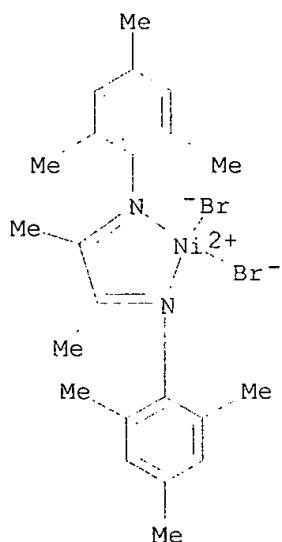
CRN 100-42-5

CMF C8 H8



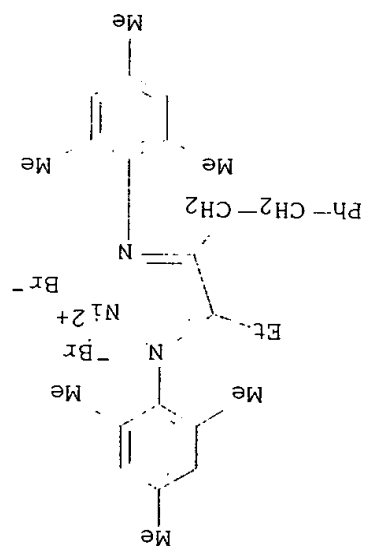
RN 202405-39-8 HCAPLUS

CN Nickel, dibromo[N,N'-(1,2-dimethyl-1,2-ethanediylidene)bis[2,4,6-trimethylbenzenamine-.kappa.N]]- (9CI) (CA INDEX NAME)

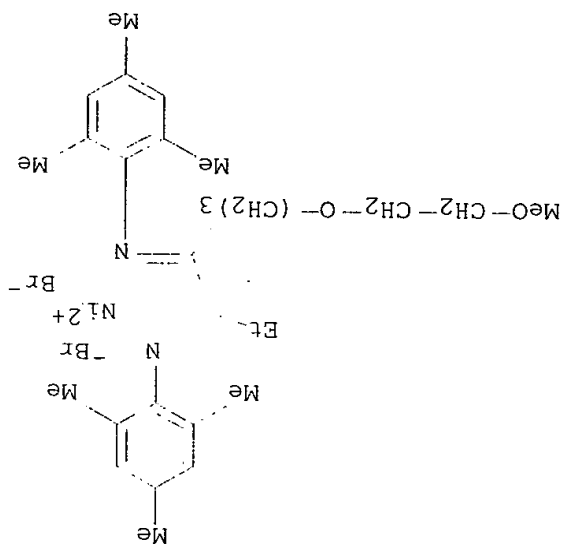


RN 202405-41-2 HCAPLUS

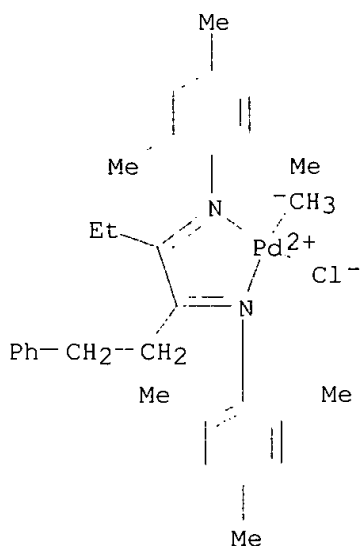
CN Nickel, dibromo[N,N'-(1-ethyl-2-(2-phenylethyl)-1,2-ethanediylidene)bis[2,4,6-trimethylbenzenamine-.kappa.N]]- (9CI) (CA INDEX NAME)



RN 202405-44-5 HCAPLUS
 CN Nickel, dibromo[N,N']-[1-ethyl-2-[3-(2-methoxyethoxy)propyl]-1,2-ethanediyliidene]bis[2,4,6-trimethylbenzenamine- κ pa.N]] - (9CI) (CA INDEX NAME)



RN 202405-45-6 HCAPLUS
 CN Palladium, chloro[N,N']-[1-ethyl-2-(2-phenylethyl)-1,2-ethanediyliidene]bis[2,4,6-trimethylbenzenamine- κ pa.N]]methyl- (9CI) (CA INDEX NAME)



IT 9002-88-4P, Polyethylene 50981-41-4P, Polyhexene
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (combinatorial synthesis and anal. of organometallic compds. and olefin
 polymn. catalysts)

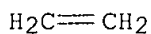
RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



RN 50981-41-4 HCAPLUS

CN Hexene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 25264-93-1

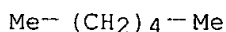
CMF C6 H12

CCI IDS

CM 2

CRN 110-54-3

CMF C6 H14



IC ICM C07F019-00

ICS C07F015-00; C07B061-00; C08F004-70

CC 35-3 (Chemistry of Synthetic High Polymers)

202405-44-5P 202405-45-6P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 (combinatorial synthesis and anal. of organometallic compds. and olefin
 polym. catalysts)
 9002-88-4P, Polyethylene 50981-41-4P, Polyhexene
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (combinatorial synthesis and anal. of organometallic compds. and olefin
 polym. catalysts)

L14 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:670363 HCAPLUS
 DOCUMENT NUMBER: 121:270363

TITLE: Synthesis and characterization of monomeric and
 dimeric complexes of molybdenum and tungsten
 containing metal-ligand multiple
 bonds

AUTHOR(S): Hall, Keith Anthony
 CORPORATE SOURCE: Univ. Washington, WA, USA
 SOURCE: (1993) 253 pp. Avail.: Univ. Microfilms Int., Order
 No. DA9417020
 From: Diss. Abstr. Int. B, 1994, 55(2), 412

IT 7439-98-7DP, Molybdenum, complexes
 RL: PREP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and characterization of monomeric and dimeric complexes of
 molybdenum contg. metal-ligand multiple bonds)
 RN 7439-98-7 HCAPLUS
 CN Molybdenum (8CI, 9CI) (CA INDEX NAME)

Mo

IT 7440-33-7DP, Tungsten, complexes
 RL: PREP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and characterization of monomeric and dimeric complexes of
 tungsten contg. metal-ligand multiple bonds)
 RN 7440-33-7 HCAPLUS
 CN Tungsten (8CI, 9CI) (CA INDEX NAME)

W

CC 78-7 (Inorganic Chemicals and Reactions)
 ST molybdenum complex multiple bond; tungsten complex multiple bond
 IT 7439-98-7DP, Molybdenum, complexes
 RL: PREP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and characterization of monomeric and dimeric complexes of
 molybdenum contg. metal-ligand multiple bonds)
 IT 7440-33-7DP, Tungsten, complexes
 RL: PREP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and characterization of monomeric and dimeric complexes of
 tungsten contg. metal-ligand multiple bonds)

=> file jic

FILE 'JICST-EPLUS' ENTERED AT 11:37:38 ON 06 JAN 2003
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FILE COVERS 1985 TO 25 DEC 2002 (20021225/ED)

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TERM (/CT) THESAURUS RELOAD.

=> d que 176

L72 204863 SEA FILE=JICST-EPLUS ABB=ON PLU=ON (TRANSITION METAL OR
ORGANOMETAL? OR METAL(A)LIGAND OR ?METAL?(5A)PRECURS?)
L73 3337 SEA FILE=JICST-EPLUS ABB=ON PLU=ON COMBINATOR? OR HIGH
THROUGHPUT
L74 88 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L72 AND L73
L75 5 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L74 AND POLYMERI?
L76 1 SEA FILE=JICST-EPLUS ABB=ON PLU=ON L75 AND SCREEN?

*1 citation for
File JICST*

=> file wpix

FILE 'WPIX' ENTERED AT 11:37:39 ON 06 JAN 2003
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FILE LAST UPDATED: 1 JAN 2003 <20030101/UP>
MOST RECENT DERWENT UPDATE: 200301 <200301/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> SLART (Simultaneous Left and Right Truncation) is now
available in the /ABEX field. An additional search field
/BIX is also provided which comprises both /BI and /ABEX <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,
SEE <http://www.derwent.com/dwpi/updates/dwpicov/index.html> <<<

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http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

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GUIDES, PLEASE VISIT:
http://www.derwent.com/userguides/dwpi_guide.html <<<

>>> DUE TO TECHNICAL ISSUES THE UPDATE 200301 HAD INITIALLY BEEN
INCOMPLETELY LOADED FOR CHEMICAL AND POLYMER CODING DATA.
THIS HAS BEEN CORRECTED AND THE SDI WILL BE RERUN.
POSSIBLE DUPLICATE SHIPPINGS OF SDIS WILL NOT BE
CHARGED FOR. WE APOLOGIZE FOR ANY INCONVENIENCE CAUSED <<<

=> d que 165

L58 31191 SEA FILE=WPIX ABB=ON PLU=ON (TRANSITION METAL OR ORGANOMETAL?
OR METAL(A)LIGAND OR ?METAL?(5A)PRECURS?)
L62 6200 SEA FILE=WPIX ABB=ON PLU=ON COMBINATOR? OR HIGH THROUGHPUT
L63 65 SEA FILE=WPIX ABB=ON PLU=ON L62 AND L58
L64 11 SEA FILE=WPIX ABB=ON PLU=ON L63 AND SOLUB?

TRAN 09/817,821

L65

4 SEA FILE=WPIX ABB=ON PLU=ON L64 AND POLYMERIS? 4 c:tes fa Derwent

=> file hcaplus

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FILE COVERS 1907 - 6 Jan 2003 VOL 138 ISS 2
FILE LAST UPDATED: 5 Jan 2003 (20030105/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d que 117

L2 136650 SEA FILE=HCAPLUS ABB=ON PLU=ON ORGANOMETALLIC COMPOUNDS+OLD,N
T/CT
L4 27463 SEA FILE=HCAPLUS ABB=ON PLU=ON LIGANDS+NT/CT
L5 21368 SEA FILE=HCAPLUS ABB=ON PLU=ON TRANSITION METAL COMPLEXES+OLD
/CT
L6 88841 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMERIZATION CATALYSTS/CT
L7 2646 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMER-SUPPORTED REAGENTS/CT
L8 37517 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYOLEFINS+OLD/CT
L9 6192 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYACETYLENES/CT
L10 13782 SEA FILE=HCAPLUS ABB=ON PLU=ON COMBINATOR?
L11 9198 SEA FILE=HCAPLUS ABB=ON PLU=ON METAL(A) LIGAND
L12 987 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND L4
L13 18233 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND L6
L14 110 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND L7
L15 3555 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND (L8 OR L9)
L16 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND (L12 OR L13 OR L14 OR
L15)
L17 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 AND L11 4 c:itations

=> d que 121

L2 136650 SEA FILE=HCAPLUS ABB=ON PLU=ON ORGANOMETALLIC COMPOUNDS+OLD,N
T/CT
L5 21368 SEA FILE=HCAPLUS ABB=ON PLU=ON TRANSITION METAL COMPLEXES+OLD

Searched by Susan Hanley 305-4053

/CT
 L10 13782 SEA FILE=HCAPLUS ABB=ON PLU=ON COMBINATOR?
 L18 149458 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMERIZATION/CT
 L19 8120 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (L2 OR L5)
 L21 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND L10 *5 cites*

=> d que 132

L10 13782 SEA FILE=HCAPLUS ABB=ON PLU=ON COMBINATOR?
 L11 9198 SEA FILE=HCAPLUS ABB=ON PLU=ON METAL(A) LIGAND
 L24 9751 SEA FILE=HCAPLUS ABB=ON PLU=ON HIGH THROUGHPUT
 L25 66426 SEA FILE=HCAPLUS ABB=ON PLU=ON LIBRAR?
 L30 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 AND (L10 OR (L24 OR L25))
 L31 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND PRECURSOR
 L32 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 NOT CLONING/TI *7 cites*

=> d que 143

L2 136650 SEA FILE=HCAPLUS ABB=ON PLU=ON ORGANOMETALLIC COMPOUNDS+OLD,N
 T/CT
 L5 21368 SEA FILE=HCAPLUS ABB=ON PLU=ON TRANSITION METAL COMPLEXES+OLD
 /CT
 L10 13782 SEA FILE=HCAPLUS ABB=ON PLU=ON COMBINATOR?
 L24 9751 SEA FILE=HCAPLUS ABB=ON PLU=ON HIGH THROUGHPUT
 L25 66426 SEA FILE=HCAPLUS ABB=ON PLU=ON LIBRAR?
 L39 64133 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5 OR METAL) (L) SOLUB?
 L40 58 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (L10 OR (L24 OR L25))
 L42 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND LIGAND
 L43 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 NOT (PROTEIN OR PEPTIDE
 OR PHAGE) /TI *8 cites*

=> d que 152

L2 136650 SEA FILE=HCAPLUS ABB=ON PLU=ON ORGANOMETALLIC COMPOUNDS+OLD,N
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 L4 27463 SEA FILE=HCAPLUS ABB=ON PLU=ON LIGANDS+NT/CT
 L5 21368 SEA FILE=HCAPLUS ABB=ON PLU=ON TRANSITION METAL COMPLEXES+OLD
 /CT
 L6 88841 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMERIZATION CATALYSTS/CT
 L7 2646 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMER-SUPPORTED REAGENTS/CT
 L8 37517 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYOLEFINS+OLD/CT
 L9 6192 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYACETYLENES/CT
 L10 13782 SEA FILE=HCAPLUS ABB=ON PLU=ON COMBINATOR?
 L11 9198 SEA FILE=HCAPLUS ABB=ON PLU=ON METAL(A) LIGAND
 L12 987 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND L4
 L13 18233 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND L6
 L14 110 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND L7
 L15 3555 SEA FILE=HCAPLUS ABB=ON PLU=ON (L2 OR L5) AND (L8 OR L9)
 L16 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND (L12 OR L13 OR L14 OR
 L15)
 L17 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 AND L11
 L18 149458 SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMERIZATION/CT
 L19 8120 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (L2 OR L5)
 L21 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND L10

L24 9751 SEA FILE=HCAPLUS ABB=ON PLU=ON HIGH THROUGHPUT
 L25 66426 SEA FILE=HCAPLUS ABB=ON PLU=ON LIBRAR?
 L26 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (L12 OR L13 OR L14 OR L15)
 L27 20 SEA FILE=HCAPLUS ABB=ON PLU=ON AND (L24 OR L25)
 L28 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 NOT (L17 OR L21)
 L49 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND LIGAND/OBI
 L52 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 AND (ORGANOMETAL? OR METAL?)/AB
 13 cites

=> s 117 or 121 or 132 or 143 or 152

L101 30 L17 OR L21 OR L32 OR L43 OR L52 30 cites from HCAPLUS
 => s (2002:655013 OR 2002:556019 OR 2002:533936 OR 2002:449730 OR 2002:221168 OR 2002:11121)/AN

L102 6 (2002:655013 OR 2002:556019 OR 2002:533936 OR 2002:449730 OR 2002:221168 OR 2002:11121)/AN
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 1 2002:556019/AN
 1 2002:533936/AN
 1 2002:449730/AN
 1 2002:221168/AN
 1 2002:11121/AN
 6 (2002:655013 OR 2002:556019 OR 2002:533936 OR 2002:449730 OR 2002:221168 OR 2002:11121)/AN
 L102 is a search of some of the accession numbers of the citations from the invents search

L103 27 L101 NOT L102 27 cites in HCAPLUS after subtracting out cites from invents search
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PROCESSING COMPLETED FOR L76

PROCESSING COMPLETED FOR L65

PROCESSING COMPLETED FOR L103

L104

=> d bib abs 1-31

L104 ANSWER 1 OF 31 WPIX (C) 2003 THOMSON DERWENT DUPLICATE 1

ACCESSION NUMBER: 2002-241388 [29] WPIX

DOC. NO. NON-CPI: N2002-186440

DOC. NO. CPI: C2002-072561

TITLE:

Combinatorial library, comprises support units having solid carrier covalently bound to ligands, metal salts containing cations coding to identify ligand and anions that form sparingly soluble salts of metal.

DERWENT CLASS:

INVENTOR(S):

CHAPMAN, K; WANG, T; XIONG, Y

A89 B04 D16 J04 S03

PATENT ASSIGNEE(S): (CHAP-I) CHAPMAN K; (WANG-I) WANG T; (XION-I) XIONG Y;
 (MERI) MERCK & CO INC
 COUNTRY COUNT: 22
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002003067	A1	20020110	(200229)*	EN	38
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR					
W: CA JP US					
US 2002022237	A1	20020221	(200229)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002003067	A1	WO 2001-US20915	20010629
US 2002022237	A1 Provisional	US 2000-215834P	20000703
		US 2001-898142	20010703

PRIORITY APPLN. INFO: US 2000-215834P 20000703; US 2001-898142
 20010703

AN 2002-241388 [29] WPIX
 AB WO 200203067 A UPAB: 20020508
 NOVELTY - A **combinatorial** library (I) comprises a number of support units (S) comprising a solid carrier (C), one or more ligands (L) covalently bound to (C), and one or more encoding metal salts (M) impregnated on (S), where (M) comprises one or more encoding metal cations distributed to code for identifying (L) and one or more anions that form insoluble or poorly **soluble** salts of (M) in the solvent are used to prepare (I).

DETAILED DESCRIPTION - A **combinatorial** library (I) comprises a number of ligand-bearing support units (S) comprising (C), ligands (L) covalently bound to (C), and (M) impregnated on (S). (C) is a material having functional groups to which (L) is covalently bound, where the functional groups and (L) are connected by linker groups. The linker groups are organic residues covalently bound both to (C) and to (L). (L) is an organic compound covalently bound to the functional groups of the carrier or to the linker groups. (M) comprises one or more encoding metal cations distributed in their natural isotope abundance or in non-natural isotope abundances, to provide a code for identifying (L). One or more anions that form insoluble or poorly **soluble** salts of (M) in the solvent(s) are used to prepare (I).

INDEPENDENT CLAIMS are also included for the following:

(1) preparing (M1) (I), by providing (S), covalently attaching a ligand or a first sub-unit of a ligand having a functional group for covalent binding to a second sub-unit, impregnating (S) with (M), and treating (S) with a solution of a salt having an anion that forms insoluble or poorly **soluble** salts when combined with (M), thus yielding a stabilized (M), the salt being stabilized against dissolution from (S), where the final step is carried out before, after or concurrently with the covalent attachment of ligand to the functional group of (C);

(2) a product made by M1; and

(3) analyzing (M3) the ligands present on support units in (I) based on the metal ion code, by providing a support unit, analyzing which metal ions are present on the beads, and comparing the metal ion content with the saved code information to determine what ligand was synthesized on the support unit.

USE - (I) is useful as a **combinatorial** library in screening methods to determine active chemical compounds for a particular use, such as agonism or antagonism of a receptor.

ADVANTAGE - The metal ions or other markers attached to the support unit are maintained stable to varied conditions such as temperature, organic reagents and solvents. The addition of anions which form insoluble salts with metal cations, prevents the loss of metal used to label a support units. Minimal restrictions are caused in the kinds of chemical reagents, solvents and conditions that can be used in the library synthesis, and also allows fast decoding without the necessity of cleaving the metal tags off of the solid support. The method requires very less time (less than 20 seconds) to decode the bead. The laser ablation equipment can be automated to scan large number of bead in arrays on plates. The method of is the capability of decoding a whole library automatically making it possible to obtain a detailed structure-activity relationship (SAR) from biological screening.

Dwg. 0/0

L104 ANSWER 2 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:368531 HCAPLUS

DOCUMENT NUMBER: 136:386578

TITLE:

Substituted pyridyl amine ligands,
complexes, catalysts and processes for polymerizing
olefins

INVENTOR(S):

Boussie, Thomas R.; Diamond, Gary M.; Goh,
Christopher; Hall, Keith A.; Lapointe, Anne M.;
Leclerc, Margarete K.; Lund, Cheryl; Murphy, Vince
Symyx Technologies, Inc., USA
PCT Int. Appl., 195 pp.
CODEN: PIXXD2
Patent
English

SOURCE:
PATENT ASSIGNEE(S):

DOCUMENT TYPE:
LANGUAGE:
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038628	A2	20020516	WO 2001-US43420	20011106
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002025662	A5	20020521	AU 2002-25662	20011106
US 2002137845	A1	20020926	US 2001-992760	20011106
US 2002142912	A1	20021003	US 2001-992630	20011106
US 2002147288	A1	20021010	US 2001-992385	20011106
US 2002156279	A1	20021024	US 2001-992789	20011106
US 2002173419	A1	20021121	US 2001-992148	20011106
US 2002177711	A1	20021128	US 2001-993031	20011106
PRIORITY APPLN. INFO.:				
US 2000-246781P	P		US 2000-246781P	20001107
US 2001-301666P	P		US 2001-301666P	20010628
WO 2001-US43420	W		WO 2001-US43420	20011106

OTHER SOURCE(S):

MARPAT 136:386578

AB Certain of these catalysts with Hf metal centers have high performance characteristics, including higher comonomer incorporation into

ethylene/olefin copolymers, where olefins are for example, 1-octene, isobutylene or styrene. The catalysts are particularly effective at polymg. propylene to high mol. wt. isotactic polypropylene in a soln. process at a variety of polymn. conditions.

L104 ANSWER 3 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:185399 HCAPLUS

DOCUMENT NUMBER: 136:229029

TITLE: Method for precipitating mono and multiple layers of organophosphoric and organophosphonic acids and the salts thereof in addition to use thereof

INVENTOR(S): Hofer, Rolf; Pawlak, Michael; Textor, Marcus; Schuermann-Mader, Eveline; Ehrat, Markus; Tosatti, Samuele

PATENT ASSIGNEE(S): Zeptosens A.-G., Switz.

SOURCE: PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020873	A2	20020314	WO 2001-EP10077	20010831
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001089859	A5	20020322	AU 2001-89859	20010831
PRIORITY APPLN. INFO.:			CH 2000-1732	A 20000905
			WO 2001-EP10077	W 20010831

OTHER SOURCE(S): MARPAT 136:229029

AB The invention relates to a method for pptg. mono or multiple layers of organophosphoric acids of general formula (I(A)) Y-B-OPO₃ H₂ (IA) or organophosphonic acids of general formula (I(B)) Y-B-PO₃ H₂ (IB) and the salts thereof, wherein B is an alkyl, alkenyl, alkynyl, aryl, aralkyl, hetaryl or hetaryl alkyl radical and Y is hydrogen or a functional group from the hydroxy, carboxy, amino, optionally low-alkyl- substituted mono or dialkylamino series, thiol, or a neg. acid group from the ester, phosphate, phosphonate, sulfate, sulfonate, maleimide, succinimidyl, epoxy, acrylate series. A biol., biochem. or synthetic indicator element can be coupled to B or Y as addn. or substitution reaction, whereby compds. can also be added imparting on the substrate surface a resistance against protein absorption and/or cell adhesion and in the B chain can be, optionally, composed of one or more ethylene oxide groups rather than one or more CH₂ groups. According to the invention, said pptn. occurs on the surfaces of the substrates of pure or mixed oxides, nitrides or carbides of **metals** and semi-conductors. The invention is characterized in that the water-sol. salts composed of formula (IA) or (IB) are used to treat said surfaces, esp. the surfaces of sensor platforms, implants and medical accessory devices. The invention also relates to the use thereof as part of coated sensor platforms, implants and medical accessory devices in addn. to novel organophosphoric acids and organophosphonic acids themselves. The optionally substituted compds. of

general formula (IA) and (IB), wherein the groups B and Y have the above mentioned designations i.e. optionally substituted alkyl, alkenyl, alkynyl, aryl, aralkyl, heteryl or heteryl, are equally called organophosphoric acids or phosphonic acids.

L104 ANSWER 4 OF 31 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:288625 HCAPLUS
 DOCUMENT NUMBER: 137:109565
 TITLE: A new method for the polymer-supported synthesis of

AUTHOR(S): Ruddick, Clare L.; Hodge, Philip; Cook, Anthony; McRiner, Andrew J.
 CORPORATE SOURCE: Chemistry Department, University of Manchester, Manchester, M13 9PL, UK
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1

(2002), (5), 629-637
 CODEN: JCSPCE; ISSN: 1472-7781
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Attachment of omega-hydroxyalkylcarboxylic acids to Merrifield beads

followed by treatment with a catalytic amt. of di-n-butyltin oxide in chlorobenzene at 133.degree. for 4-18 h brought about the formation of the corresponding cyclic oligomers (COs) as the main (>92%) sol. products in yields of 56-83%. Similar results were obtained with polymer-supported (PS) ricinoleic acid, which has a secondary hydroxy group, but attempts to carry out analogous reactions with PS lithocholic acid failed. PS 20-hydroxyicos-10-enoic acid and N-(11-hydroxyundecanoyl)-11-aminoundecanoic acid reacted well to give COs, the cyclic monomers being the major products. Samples of these cyclic monomers were isolated. The latter 2 hydroxy acids were also successfully assembled on the beads (the former using olefin metathesis) and then cyclo-oligomerized. There are several possible applications for this PS synthetic method. Thus, the COs might be used, via transesterifications, for the prepn. of sol. combinatorial libraries of macrocycles, or used as starting materials for the small-scale combinatorial synthesis of copolyesters. For both of these applications the fact that the PS syntheses afford families of COs is not a problem because the applications involve the establishment of equil. into which all of the COs can feed. Finally, these PS reactions may provide a useful approach to the small-scale synthesis of macrocyclic lactones with 15 or more ring atoms, since with these ring sizes the cyclized monomers are formed in >67% yield.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 5 OF 31 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:624842 HCAPLUS
 DOCUMENT NUMBER: 137:338217
 TITLE: Screening and application of ATRP catalysts utilizing

AUTHOR(S): Zhang, Huiqi; Hoogenboom, Richard; Fijten, Martin W.
 CORPORATE SOURCE: Lab. Macromolecular Organic Chem., DPI, Eindhoven Univ. Technology, Eindhoven, 5600 MB, Neth.
 SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(2), 17
 CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB Controlled radical polymns. were successfully carried out utilizing an automated synthesizer. Characterization of the polymn. process and the obtained polymers could be performed using both online GPC and GC and MALDI-TOF-MS. Different metal complexes were evaluated for their use as catalysts in ATRP.
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 6 OF 31 WPIX (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2002-066610 [09] WPIX
DOC. NO. NON-CPI: N2002-049439
DOC. NO. CPI: C2002-019880
TITLE: Preparing surface with immobilized recognition elements, useful e.g. in biosensors, by electrodeposition of resin from emulsion containing active substances.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): SCHUHMANN, W
PATENT ASSIGNEE(S): (SCHU-I) SCHUHMANN W; (ASUL) ASULAB SA
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001086298	A1	20011115	(200209)*	GE	49
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
DE 10022750	A1	20011122	(200209)		
AU 2001052086	A	20011120	(200219)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001086298	A1	WO 2001-CH279	20010508
DE 10022750	A1	DE 2000-10022750	20000510
AU 2001052086	A	AU 2001-52086	20010508

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001052086	A Based on	WO 200186298

PRIORITY APPLN. INFO: DE 2000-10022750 20000510

AN 2002-066610 [09] WPIX

AB WO 200186298 A UPAB: 20020208

NOVELTY - Preparing a surface (1), functionalized with recognition elements (RE), comprising a body (2), optionally electrically conductive, and on this a resin layer (3) containing at least one substance (4) with RE activity, is new. (3) is formed on (2) by electrodeposition, is prepared from **polymerizable** ionic monomers and can be deposited by a pH change. (4) is deposited with (3) from a resin emulsion.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for articles produced by the novel method.

USE - For preparing (bio)sensors and arrays for use in combinatorial chemistry or biology; immunoassays; screening methods; diagnosis and catalyst research.

ADVANTAGE - The method is simple, quick and inexpensive, is applicable to conventional electrode materials, does not require exclusion of oxygen during deposition; allows controlled variation in film thickness and simultaneous incorporation of active components into the resin layer. Many different resin layers can be applied, optionally at selected sites for preparation of arrays, and the method is compatible with fluorescent labeling.

Dwg. 0/0

L104 ANSWER 7 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:780894 HCAPLUS
DOCUMENT NUMBER: 135:331551

TITLE: Polymer-supported synthesis of heteroatom bidentate

ligands for catalysts of cross-coupling

reactions

Li, George Yanwu

E.I. Dupont De Nemours and Company, USA

PCT Int. Appl., 36 pp.

CODEN: PIXXD2

Patent

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001079213	A2	20011025	WO 2001-US11982	20010411
WO 2001079213	A3	20020207		

W: CA, JP

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE, TR

US 2002077479 A1 20020620

US 2001-832405 20010411

US 2000-197031P P 20000413

US 2001-832405 A 20010411

OTHER SOURCE(S):

CASREACT 135:331551

AB The invention relates to the combinatorial approaches to the prepn. of novel polymer-supported heteroatom bidentate (PN, PO, PS) ligand

libraries and the corresponding free compds. after cleavage from

the supports. Thus, polymer-supported propylamine (synthetic prepn.

given) was reacted with 2-dibromophosphino-N,N-dimethyl-p-toluidine

(synthetic prepn. given) to polymer-supported 2-P(Br)-1-NMe2-4-(Me)C6H3,

I. Compd. I was reacted with PCl3 and the resin was filtered off to give

64% 2-PCl(Br)-1-NMe2-4-(Me)C6H4. These compds. are useful as novel

ligands in the prepn. of metal-contg. catalysts.

L104 ANSWER 8 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:924282 HCAPLUS

DOCUMENT NUMBER: 136:54206

TITLE:

INVENTOR(S):

PATENT ASSIGNEE(S):

USA

U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of U.S.

Provisional No. 56,818.

CODEN: USXXCO

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 20
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001053528	A1	20011220	US 1998-33207	19980302
WO 9905318	A1	19990204	WO 1998-US14293	19980710
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 950114	A1	19991020	EP 1998-934381	19980710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2001049090	A1	20011206	US 1998-220101	19981223
PRIORITY APPLN. INFO.:				
			US 1997-56818P	P 19970822
			US 1997-898715	A 19970722
			US 1998-33207	A 19980302
			WO 1998-US14293	W 19980710

AB The present invention discloses methods and materials for constructing combinatorial **libraries** composed of **organometallic** compds. immobilized on solid supports and encoded with detectable tags. The encoded **library** of **organometallic** compds. is esp. useful for rapidly screening large nos. of member compds. for catalytic performance. These immobilized catalysts can be pooled in a single reactor where they are screened for a predefined property, such as catalytic activity and selectivity.

L104 ANSWER 9 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:759597 HCAPLUS

DOCUMENT NUMBER: 135:304274

TITLE: Combinatorial synthesis and of nickel and palladium diimine organometallic compounds as olefin polymerization catalysts

INVENTOR(S): Weinberg, Henry W.; Goldwasser, Isy; Turner, Howard; Murphy, Vince; McFarland, Eric; Bouisse, Thomas; Van Beek, Johannes; Powers, Timothy

PATENT ASSIGNEE(S): Symyx Technologies, USA

SOURCE: Eur. Pat. Appl., 57 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 20

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1146030	A2	20011017	EP 2001-201676	19970722
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 923590	A1	19990623	EP 1997-934335	19970722
EP 923590	B1	20011010		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, IE, FI				
EP 978499	A2	20000209	EP 1999-203632	19970722
EP 978499	A3	20000705		
EP 978499	B1	20011114		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
EP 983983	A2	20000308	EP 1999-203631	19970722

EP 983983 A3 20000705
 EP 983983 B1 20011212
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
 EP 985678 A2 20000315
 EP 985678 A3 20000705
 EP 985678 B1 20011205
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
 JP 2002241319 A2 20020828
 JP 2002241387 A2 20020828
 JP 2002241388 A2 20020828
 US 2001033375 A1 20011025
 US 2002197731 A1 20021226
 PRIORITY APPLN. INFO.:

AB The present invention relates, inter alia, to methodologies for the synthesis, screening and characterization of **organometallic** compounds, and catalysts (e.g. homogeneous catalysts). The methods of the present invention provide for the combinatorial synthesis, screening and characterization of **libraries** of supported and unsupported **organometallic** compounds, and catalysts (e.g. homogeneous catalysts). The methods of the present invention can be applied to the prepn. and screening of large nos. of **organometallic** compds. which can be used not only as catalysts (homogeneous catalysts), but also as additives and therapeutic agents. Thus, for example, free [NiLBr₂] [L = PhCH₂CH₂C(:Nmes)C(:Nmes)Et] and a PEG-polystyrene bound analog [with L = -CH₂C(:Nmes)C(:Nmes)Et] were prepd. and their activity as catalysts for polymg. ethylene was demonstrated.

LI04 ANSWER 10 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:139742 HCAPLUS

DOCUMENT NUMBER: 134:316734

TITLE: Chloroform-Soluble Schiff-Base Zn(II) or Cd(II)

Complexes from a Dynamic Combinatorial Library
 AUTHOR(S): Epstein, Daniel M.; Choudhary, Seema; Churchill, Melvyn Rowen; Keil, Kim M.; Eliseev, Alexey V.; Morrow, Janet R.

CORPORATE SOURCE: Department of Chemistry, State University of New York,

SOURCE: Amherst, NY, 14260, USA

Inorganic Chemistry (2001), 40(7), 1591-1596

CODEN: INOCAT; ISSN: 0020-1669

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

AB A dynamic combinatorial library of metal ion

Schiff-base complexes were studied for the extn. of Zn(II) or Cd(II) from aq. soln. into chloroform. **Library** components consist of different aminophenols and 2-pyridinecarboxaldehyde. Extn. of both Zn(II) and Cd(II) into chloroform was obsd. from aq. solns. contg. 0.0500 mM M(NO₃)₂, 0.100M aminophenol, 0.100M 2-pyridinecarboxaldehyde, 0.100M NaCl, and 5.00 mM buffer at pH 8.5. Extn. was dependent on pH but not on counterions including Cl⁻, Br⁻, or NO₃⁻. Equil. was attained between the Schiff-base complexes across the two-phase chloroform-water system after 24 h of stirring. Anal. of the extd. species using ¹H NMR spectroscopy and mass spectrometry as well as **soly.** studies on characterized complexes suggested that the major extd. species is the neutral bis-Schiff-base **metal** ion complex. In **libraries** contg. mixts. of two different aminophenols and 2-pyridinecarboxaldehyde, an enhanced extent of extn. of Zn(II) into chloroform is obsd. Studies suggest that a Zn(II) complex, which is likely the mixed Schiff-base complex, has superior extn. properties compared to simple **libraries** with a single aminophenol component. The structures of two bis-Schiff-base complexes of Zn(II) and one of Cd(II) were detd. by x-ray crystallog. The geometries of the two Zn(II) complexes, which differ only by a Me substituent on the Schiff-base **ligand**, are markedly different, supporting the use of **combinatorial** methods in coordination chem. Zn(SB14)₂ [HSB14 = 2-(2-pyridylmethyleamino)phenol] crystd. as the sesquihydrate (C₂₄H₁₈N₄O₂Zn.cntdot.1.5 H₂O) in the space group C2/c, with cell dimensions a 23.219(15), b 11.299(7), c 16.822(11) .ANG., .beta. 102.91(5).degree., and Z = 8. Zn(SB15)₂ [HSB15 = 3-methyl-2-(2-pyridylmethyleamino)phenol] crystd. as a 1:1 methanol solvate (C₂₆H₂₂N₄O₂Zn.cntdot.CH₃OH) in the space group P2₁/c with a 13.981(5), b 7.978(3), c 22.568(8) .ANG., .beta. 104.53(3).degree., and Z = 4. Cd(SB14)₂ crystd. as a 1:1 ethanol solvate (C₂₄H₁₈N₄O₂Cd.cntdot.CH₃CH₂OH) in the space group R.hivin.3 with a 36.423(2), c 9.2930(10) .ANG., and Z = 18.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:640900 HCAPLUS

TITLE: Synthesis and peptide-binding properties of C2-symmetric metallomacrocycles

AUTHOR(S): Yoon, Seung Soo; Lee, Kum Hee; Lee, Chang-yeon
CORPORATE SOURCE: Department of Chemistry, SungKyunKwan University, Suwon, 440-746, S. Korea

SOURCE: Abstracts of Papers, 222nd ACS National Meeting, Chicago, IL, United States, August 26-30, 2001 (2001), ORGN-537. American Chemical Society: Washington, D. C.
CODEN: 69BUZP

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB To develop selective peptide-binding receptors, a series of C2-sym. metallomacrocycles were designed and prepd. Acyclic **precursors** contg. ligand moieties for the various transition metals were prepd. from the suitably functionalized aroms. and amino acids (or chiral 1,2-diamines) through the amide-coupling reactions. Subsequent macrocyclization reactions by exploiting transition **metal-ligand** coordinate bond provided the metallomacrocycles with good yields. These C2-sym. metallomacrocycles have the potential peptide-binding sites having the benzene-lined hydrophobic surfaces with a periphery of hydrogen bonding donor/acceptors. Peptide-binding properties of these metallomacrocycles were examd. by solid-phase color assays using

the encoded **combinatorial library** of peptide substrates. **Combinatorial** binding assay revealed that these metallomacrocycles have the remarkable sequence-selective peptide-binding properties.

L104 ANSWER 12 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:639530 HCAPLUS

TITLE:

Chloroform-soluble Zn(II) or Cd(II) complexes from a dynamic **combinatorial library**

AUTHOR(S):

Choudhary, Seema; Epstein, Daniel M.; Morrow, Janet R. Department of Chemistry, State University of New York at Buffalo, Buffalo, NY, 14260, USA

CORPORATE SOURCE:

Abstracts of Papers, 222nd ACS National Meeting, Chicago, IL, United States, August 26-30, 2001 (2001), INOR-343. American Chemical Society: Washington, D. C.

DOCUMENT TYPE:

Conference; Meeting Abstract

LANGUAGE:

English

AB

A dynamic **combinatorial library** of metal ion

soln. into chloroform. **Library** components consist of different

amphenols, hydrazides and 2-pyridinecarboxaldehyde. Extn. was

dependent on pH but not on counterions including Cl⁻, Br⁻, or NO₃⁻.

Studies showed that equil. was attained between the metal

complexes across the two-phase chloroform-water system after 24 h of

stirring. Anal. of the extd. species by the use 1H NMR spectroscopy and

mass spectrometry as well as soly. studies on characterized

complexes suggested that the major extd. species is the neutral bis

metal ion complex. In **libraries** contg. mixts. of two

different amphenols and 2-pyridinecarboxaldehyde, an enhanced extent of

extn. of Zn(II) into chloroform is obsd. Studies suggested that a Zn(II)

complex, which is likely the mixed Schiff-base complex, has superior extn.

properties compared to simple **libraries** with a single

amphenol component. The structures of few metal complexes of

Zn(II) and Cd(II) have been detd. by X-ray crystallog. The geometries of

the two Zn(II) complexes, which differ only by a Me substituent on the

Schiff-base **ligand**, are markedly different, supporting the use

L104 ANSWER 13 OF 31 JICST-EPLUS COPYRIGHT 2003 JST

ACCESSION NUMBER: 1010745640 JICST-EPLUS

TITLE:

New Aspect: Can **Combinatorial Chemistry** Play a

Role in Catalysis Study? **Combinatorial Catalysis**.

AUTHOR:

UNO TETSUO

CORPORATE SOURCE:

Genomics Inst. Novartis Res. Foundation, Ca, Usa

SOURCE:

Shokubai (Catalysts & Catalysts), (2001) vol. 43, no. 5, pp. 327-331. Journal Code: F0319A

CODEN: SHKUAJ; ISSN: 0559-8958

PUB. COUNTRY:

Japan

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

Japanese

STATUS:

New

AB

Combinatorial catalysis is research and development in catalysts

and catalytic reactions by **combinatorial high**

throughput methodologies. Its technology consists of rapid library

synthesis, **high throughput** analysis, and informatics.

It enables a dramatic acceleration of catalyst development. (author abst.)

L104 ANSWER 14 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:384150 HCAPLUS
DOCUMENT NUMBER: 133:18006
TITLE: **Combinatorial** discovery and testing of ionic liquids
INVENTOR(S): Murphy, Vince; Hagemeyer, Alfred; Poojary, Damodara M.
PATENT ASSIGNEE(S): Symyx Technologies, USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000032572	A2	20000608	WO 1999-US28761	19991203
WO 2000032572	A3	20010118		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 1998-205811 A 19981204

OTHER SOURCE(S): MARPAT 133:18006

AB Arrays of ionic liqs. are provided for **combinatorial** materials science research. These ionic liqs. may be characterized by the general formula $A+B^-$ where A^+ represents any stable inorg. or org. cation and B^- represents any stable org. or inorg. anion. The uses for such arrays are as co-solvents in various chem. reactions. Isobutylene was polymd. using 1-methyl-3-ethylimidazolium aluminum tetrachloride in various concns. and at various temps. in a **combinatorial** library.

L104 ANSWER 15 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:383856 HCAPLUS
DOCUMENT NUMBER: 133:28249
TITLE: A new support for high performance affinity chromatography and other uses
INVENTOR(S): Abbott, Nicholas; Stroeve, Pieter; Dubrovsky, Timothy B.; Hou, Zhizhong
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000032044	A1	20000608	WO 1999-US28827	19991203
W:	CA, JP			
RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			

PRIORITY APPLN. INFO.: US 1998-205750 A 19981204

AB Multilayered particulate materials are formed by coating a particulate substrate with a **metal** and adsorbing an org. layer comprising a

recognition moiety onto the metal film. The recognition moiety interacts with an analyte of interest allowing for its detection, purify, etc. Suitable recognition moiety can be selected from a range of species including, small moles, polymers and biomols, and the like. The novel particulate materials of the invention can be utilized in an array of methods including, ion-exchange, ion-selective ion-exchange, assays, affinity dialysis, size exclusion dialysis, as supports in solid phase synthesis, combinatorial synthesis and screening of compd. **libraries** and the like.

REFERENCE COUNT: 7
THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:260134 HCAPLUS
DOCUMENT NUMBER: 132:270435
TITLE: Polymer-supported phosphorus ligands for catalysts
INVENTOR(S): Fagan, Paul J.; Li, George
PATENT ASSIGNEE(S): E.I. Du Pont de Nemours and Company, USA
SOURCE: PCT Int. Appl., 169 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

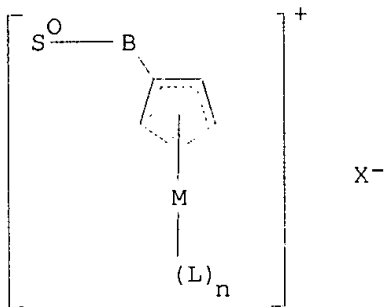
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000021663	A2	20000420	WO 1999-US23509	19991013
WO 2000021663	A3	20001123		
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2345639	AA	20000420	CA 1999-2345639	19991013
EP 1133357	A2	20010919	EP 1999-954804	19991013
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002527413	T2	20020827	JP 2000-575622	19991013
PRIORITY APPLN. INFO.:				
US 1998-103946P	P		US 19981013	
WO 1999-US23509	W		WO 19991013	

OTHER SOURCE(S): MARPAT 132:270435
AB Novel phosphine and phosphine oxide ligands are prepd. using polymeric supports. These compds. can be easily cleaved from the support, and along with the corresponding supported compds., used as ligands in the prepn. of novel, metal-complexed catalysts. The ligands are obtained by combinatorial synthesis. A process for prep. coumarin by contacting salicylaldehyde with an acrylate is also provided.

L104 ANSWER 17 OF 31 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:284023 HCAPLUS
DOCUMENT NUMBER: 132:279345
TITLE: Arene-transition metal linkers for solid phase synthesis
INVENTOR(S): Gallup, Mark A.
PATENT ASSIGNEE(S): Glaxo Wellcome Inc., USA
SOURCE: U.S., 16 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6057465	A	20000502	US 1997-861954	19970522
PRIORITY APPLN. INFO.: GI			US 1997-861954	19970522



AB Comps. and methods for the solid phase synthesis of org. compds. are provided. The compns. are solid supports having an attached traceless linker **precursor**, I (SO = solid support; B = connecting group; M = transition metal, for example ruthenium, chromium, iron, molybdenum and manganese; L = independently a transition **metal ligand**; n = 1-4 such that M has a sufficient no. of ligands to fill the available valences; X- = an anion which is typically a non-nucleophilic anion), are described.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:10559 HCAPLUS

DOCUMENT NUMBER: 132:73621

TITLE: Target-specific screens using recombinant antibody variable region reporters, and their use for discovering small organic molecular pharmacophores

INVENTOR(S): Blume, Arthur J.

PATENT ASSIGNEE(S): DGI BioTechnologies, LLC, USA

SOURCE: U.S., 78 pp., Cont.-in-part of U.S. Ser. No. 286,084, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6010861	A	20000104	US 1995-473105	19950607
CA 2196679	AA	19960215	CA 1995-2196679	19950802

WO 9604557 A2 19960215 WO 1995-US10182 19950802

AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, RW: KE, MW, SD, SZ, UG, AT, BE, BF, BJ, CF, CG, CI, CM, GN, GT, MR, NE, LU, MC, NL, PT, SE, BF, BU, CF, CG, CI, CM, GA, GB, GR, IE, IT, SN, TD, TG

AU 9533631 A1 19960304 AU 1995-33631 19950802

EP 774118 A2 19970521 EP 1995-930144 19950802

EP 774118 B1 20001004

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

JP 10507517 T2 19980721 JP 1995-506821 19950802

EP 1028315 A2 20000816 EP 2000-111315 19950802

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE

AT 196802 E 20001015

US 1994-286084 B2 19940803 US 1995-473105 A 19950607

EP 1995-930144 A3 19950802

WO 1995-US10182 W 19950802

AB The invention relates to a general process by which recombinantly derived variable domains of antibodies encompassing either or both light and heavy selected for identification of unique surface domains of pharmaceutical targets or parts thereof which regulate target function. The recombinant antibodies are useful as reagents for high vol., rapid screening of occupation of the active surface domains by natural or synthetic entities. This invention is also directed to elucidating the three-dimensional conformation of the antibodies, or parts thereof, which bind to the pharmaceutical targets and confers activity. Methods for creating high resoln. mol. models which can direct the synthesis of biol. active small org. mols. useful as viable discovery drug leads are also provided.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2000:579180 HCAPLUS
 DOCUMENT NUMBER: 133:290306

TITLE: A modular approach to structurally diverse bidentate chelate ligands for transition metal catalysis

AUTHOR(S): Kranich, Remo; Eis, Knut; Geis, Oliver; Muhle, Stefan; Bats, Jan W.; Schmalz, Hans-Gunther

CORPORATE SOURCE: Institut fur Organische Chemie der Technischen Universität Berlin, Berlin, 10623, Germany

SOURCE: Chemistry--A European Journal (2000), 6(15), 2874-2894
 CODEN: CEUJED; ISSN: 0947-6539
 PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal
 LANGUAGE: English

AB A modular approach to a new class of structurally diverse bidentate P/N, P/P, P/S, and P/Se chelate ligands was developed. Starting from hydroquinone, various ligands were synthesized in a divergent manner via orthogonally bis-protected bromohydroquinones as the central building block. The first donor functionality (L1) is introduced to the atom. (hydroquinone) ligand backbone either by Pd-catalyzed cross-coupling (Suzuki coupling) with hetero-aryl bromides, by Pd-catalyzed amination, or by lithiation and subsequent treatment with electrophiles (e.g., chlorophosphines, disulfides, selenides, or carbamoyl chlorides). After

selective deprotection, the second ligand tooth (L2) is attached by reaction of the phenolic OH functionality with a chlorophosphine, a chlorophosphite, or a related reagent. Some of the resulting chelate ligands were converted into the resp. PdX₂ complexes (X = Cl, I), two of which were characterized by x-ray crystallog. The methodol. developed opens an access to a broad variety of new chiral and achiral transition **metal** complexes and is generally suited for the solid-phase synthesis of combinatorial **libraries**, as are reported sep.

REFERENCE COUNT: 118 THERE ARE 118 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:795725 HCAPLUS

TITLE: Extraction of Cd²⁺, Pb²⁺ and Zn²⁺ Schiff-base metal complexes and their selection from a dynamic **combinatorial library**.

AUTHOR(S): Choudhary, Seema; Epstein, Danny; Morrow, Janet R.

CORPORATE SOURCE: Department of Chemistry, State University of New York, Amherst, NY, 14260, USA

SOURCE: Abstr. Pap. - Am. Chem. Soc. (2000), 220th, INOR-280
CODEN: ACSRAL; ISSN: 0065-7727

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal; Meeting Abstract

LANGUAGE: English

AB Dynamic **Combinatorial Libraries** (DCL) are a powerful tool for studying host/guest interactions and for developing catalyst for many reactions. Formation of a Schiff-base complex from a primary amine and an aldehyde is promoted by **metal** ions. A DCL is generated by the reversible reaction of various substituted aminophenols and 2-pyridinecarboxylaldehyde (2-PCA) in the presences of Cd²⁺, Pb²⁺ or Zn²⁺ ions. The most stable and **sol.** complex is extd. with chloroform. By using ¹H NMR, FAB-MS and UV-Vis, the complexes have been characterized. An X-ray crystal structure obtained for one of the Cd(II) and Zn(II) complexes have a pseudo-octahedral geometry around the **metal** ions. Selectivity and cooperativity between **ligands** have been obsd. for **metal** ion extn.

L104 ANSWER 21 OF 31 WPIX (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1999-394846 [33] WPIX

DOC. NO. NON-CPI: N1999-295145

DOC. NO. CPI: C1999-116004

TITLE: Synthesis of oligoarylamines, used to make electroactive polyanilines.

DERWENT CLASS: A23 A26 A28 A60 A85 E19 G02 G06 J04 L03 M14 U11 V04 X12
X16

INVENTOR(S): BUCHWALD, S L; MACKEWITZ, T; SADIGHI, J P; SINGER, R A

PATENT ASSIGNEE(S): (MASI) MASSACHUSETTS INST TECHNOLOGY

COUNTRY COUNT: 21

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9928290	A1	19990610	(199933)*	EN	141
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
W: CA JP					
US 6235871	B1	20010522	(200130)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9928290	A1	WO 1998-US25555	19981202
US 6235871	B1 Provisional	US 1997-67275P	19971203
		US 1998-203726	19981202

PRIORITY APPLN. INFO: US 1997-67275P 19971203; US 1998-203726

AN 1999-394846 [33] WPX
 WO 9928290 A UPAB: 19990819

NOVELTY - Synthesis of compounds comprising alternating protected heteroatom and aryl moieties comprising the transition-mediated coupling of aryl amines with activated aryl compounds.
 DETAILED DESCRIPTION - Synthesis of compounds comprising alternating protected heteroatom and aryl moieties, comprises reacting (i) an activated compound comprising alternating heteroatom and aryl moieties and one activated carbon bearing an activated group, with (ii) an amino-substituted compound comprising alternating heteroatom and aryl moieties and an amine, in the presence of (iii) a transition metal catalyst to form a new C-N bond between the activated carbon of (i) and the amine of (ii).

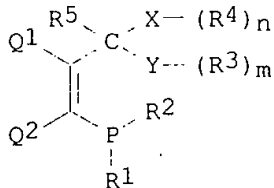
INDEPENDENT CLAIMS are also included for the following:
 (1) methods in which (i) is a bis-activated compound and is reacted with 2 or more equivalents of (ii), or 2 or more equivalents of (i) are reacted with (ii) comprising a bis-amino-substituted compound;
 (2) synthesis of polymers by the method, comprising the transition metal-catalyzed polymerization of an activated and amino-substituted compound(s) having the alternating heteroatom and aryl moieties, or of such a bis-activated compound(s) with such a bis-amino-substituted compound(s);
 (3) polymeric compounds obtained by the method;
 (4) amine derivatives, produced by metallation of an aryl group of an amine derivative followed by reaction with an electrophilic reagent, where a nitrogen atom of the metallated intermediate is protected as an amine;

(5) a composition comprising a polyaniline, protected polyaniline, substituted polyaniline or protected substituted polyaniline having a polydispersity less than 5; and
 (6) preparation of a film of oligoaniline, comprising deprotection of a film of an oligoaniline protected by a nitrogen-protecting group.
 USE - As components in rechargeable batteries, electrochromic displays, electromechanical actuators, anticorrosion coatings for steel and electromagnetic interference shielding. Especially useful for applications including ion sensors, photolithography and fusing of plastics.
 ADVANTAGE - The method provides for the synthesis of lightweight, corrosion resistant, recyclable, flexible electroactive compounds which are stable to ambient atmosphere, soluble in common organic solvents, and can be readily manipulated into useful forms. It particularly provides protected polyanilines of low polydispersity which can be deprotected and activated under specific conditions.

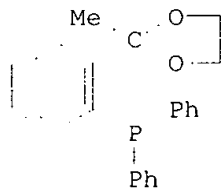
L104 ANSWER 22 OF 31 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:691104 HCAPLUS
 DOCUMENT NUMBER: 131:322216
 TITLE: Ancillary phosphine ligands and metal complexes
 INVENTOR(S): Guram, Anil

PATENT ASSIGNEE(S): Symyx Technologies, USA
 SOURCE: PCT Int. Appl., 38 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 7
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9954337	A1	19991028	WO 1999-US8091	19990414
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6225487	B1	20010501	US 1998-62128	19980417
AU 9935584	A1	19991108	AU 1999-35584	19990414
EP 989988	A1	20000405	EP 1999-917467	19990414
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1998-62128	A 19980417
			WO 1999-US8091	W 19990414
OTHER SOURCE(S):			CASREACT 131:322216; MARPAT 131:322216	
GI				



I



II

AB A new ligand, having a backbone comprised of PCCC, where the last carbon atom is sp³-hybridized, can be combined with a metal or metal precursor compd., or formed into a **metal-ligand** complex, to catalyze a no. of different chem. transformations, including C-N bond formation. In particular, compds. I are claimed [wherein R1-R5 = H, (un)substituted (cyclo)alkyl, heterocyclyl, (hetero)aryl, alkoxy, aryloxy, silyl, boryl, phosphino, amino, thio, seleno, and combinations thereof; R1R2 and/or R3R4 = atoms to form ring(s); Q1, Q2 = as given for R1, or Q1Q2 = atoms to form ring; X = C, H, O, P, B, Si, or N; n = 0-3; Y = N, P, or O; m = 1-2; C = sp³-hybridized carbon atom; provided that R5 .noteq. H when Y = N and Q1Q2 forms a benzene ring]. For instance, 2-bromoacetophenone was ketalized with ethylene glycol under Dean-Stark conditions, and the ketal was lithiated with BuLi at -78.degree. and treated with ClPPH2 to give the ligand II. The latter, in combination with Pd(dba)₂, catalyzed the cross-coupling of 4-bromobiphenyl with Bu₂NH in the presence of NaOBu-t at 100.degree. in PhMe, giving a yield of 98% 4-PhC₆H₄NBu₂, and a conversion of 97%. In comparison, the ligand BINAP under similar conditions gave only 0.43% selectivity and 77% conversion. A **combinatorial discovery library** based on ligand, substrate, and solvent (56 members) demonstrated the superiority of II

over a variety of other ligands, using thin-layer chromatog. (TLC) as the screening method.

REFERENCE COUNT: 8
THERE ARE 8 CITED REFERENCES AVAILABLE IN THE RE FORMAT
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:96397 HCAPLUS
DOCUMENT NUMBER: 130:12537
TITLE: Encoding of organometallic libraries

INVENTOR(S): Bousset, Thomas; Murphy, Vince; Van Beek, Johannes A.
M.; Devenney, Martin; Turner, Howard W.; Powers, Timothy

PATENT ASSIGNEE(S): Symyx Technologies, USA
SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 20

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9905318	A1	19990204	WO 1998-US14293	19980710
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6030917	A	20000229	US 1997-898715	19970722
US 2001053528	A1	20011220	US 1998-33207	19980302
EP 950114	A1	19991020	EP 1998-934381	19980710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2001033375	A1	20011025	US 2001-874758	20010605
US 2002197731	A1	20021226	US 2002-183306	20020625

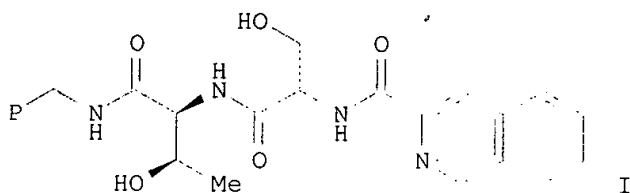
PRIORITY APPLN. INFO.:

AB The present invention discloses methods and materials for constructing combinatorial libraries composed of organometallic comps. immobilized on solid supports and encoded with detectable tags. The encoded library of organometallic compds. is esp. useful for rapidly screening large nos. of member compds. for catalytic performance. These immobilized catalysts can be pooled in a single reactor where they are screened for a predefined property, such as catalytic activity and selectivity.

REFERENCE COUNT: 2
THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 24 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:251901 HCAPLUS
 DOCUMENT NUMBER: 131:10019
 TITLE: Discovery of novel catalysts for alkene epoxidation from metal-binding **combinatorial libraries**
 AUTHOR(S): Francis, Matthew B.; Jacobsen, Eric N.
 CORPORATE SOURCE: Department of Chemistry and Chemical Biology and Institute of Chemistry and Cellular Biology, Harvard University, Cambridge, MA, 02138, USA
 SOURCE: Angewandte Chemie, International Edition (1999), 38(7), 937-941
 CODEN: ACIEF5; ISSN: 1433-7851
 PUBLISHER: Wiley-VCH Verlag GmbH
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI



AB A **combinatorial library** of imine ligands is prepd. on solid support and tested for activity in the stereoselective epoxidn. of trans-.beta.-methylstyrene in the presence of metal salts and hydrogen peroxide. The **library** consisted in part of amino acids (asparagine, cysteine, histidine, methionine, or serine) linked at their N-termini to cis-aminoindenol, trans-diaminocyclohexane, or serine whose free amino groups were used to form imines or amides with aldehydes or carboxylic acids. A **library** of salen ligands with different imine groups was also prepd. FeCl₂ was the most effective metal **precursor** with the **libraries** in epoxidns. with H₂O₂. Serine or cysteine worked best as the C-terminal amino acids for epoxidn. ligands, while 2-pyridinecarboxaldehyde and 2-pyridinecarboxylic acid were the most effective capping reagents for the ligands. Polymer-bound ligand I (P = polymer) was treated with a 0.02M soln. of FeCl₂ in 4:1 THF:MeOH and agitated and purified until the THF:MeOH rinses were clear; treatment of trans-.beta.-methylstyrene in 1:1 CH₂Cl₂:Me₃COH with the resin-bound FeCl₂ complex of I followed by addn. of 1.5 equiv. of 30% H₂O₂ gave (R,R)-trans-.beta.-methylstyrene oxide with 78% conversion, 69% yield, and in 20% ee.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 25 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:558834 HCAPLUS
 DOCUMENT NUMBER: 132:152238
 TITLE: Controlled radical polymerizations mediated by one-electron atom-transfer chemistry of transition-metal complexes: electrochemistry and **combinatorial** approaches
 AUTHOR(S): Novak, Bruce M.; Goh, Christopher; Kwark, Young-Je
 CORPORATE SOURCE: Department of Chemistry, North Carolina State University, Raleigh, NC, 27695-8204, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(2), 331
 CODEN: ACPPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer Chemistry

DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The catalysts mechanisms of atom-transfer radical polym. (ATRP) were studied applying **combinatorial** chem. principles. The mechanism of the ATRP approach is based on the fact that radical reactions can be controlled to a high degree under the right circumstances and the system has many of the attributes of a living system. The development of controlled sequential addn. of monomers for ATRP involves trials of large arrays of metal complexes, ligands, initiators, and halogens under a variety of conditions, as well as parameters such as, reaction rate (yield of polymer over time), polydispersity, and mol. wt. (exptl. vs. theor.). From this standpoint, the approach is **combinatorial**, although there are obvious problems in characterizing the many products in a meaningful and rapid fashion.

L104 ANSWER 26 OF 31 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:541531 HCAPLUS

TITLE: Selection of Schiff-base metal complexes from a dynamically generated **combinatorial** library.

AUTHOR(S): Epstein, Daniel M.; Eliseev, Alexey B.; Churchill, Melvyn R.; Morrow, Janet R.
 CORPORATE SOURCE: Department of Chemistry, State University of New York at Buffalo, Buffalo, NY, 14260-3000, USA
 SOURCE: Book of Abstracts, 218th ACS National Meeting, New Orleans, Aug. 22-26 (1999), INOR-080. American Chemical Society: Washington, D. C.
 CODEN: 67ZJAS

DOCUMENT TYPE: Conference; Meeting Abstract
 LANGUAGE: English
 AB Schiff base formation in aq. soln. is promoted by metal ions. The Schiff bases are in dynamic equil. with their component carbonyl and amine. A dynamic **combinatorial** library is generated by the reversible reaction of various substituted 2-aminophenols with 2-pyridinecarboxaldehyde (2-PCA) and/or 2-acetylpyridine in the presence of Zn ions. Extn. to chloroform was used to select the most stable and sol. complex. The formation and extn. to chloroform of these complexes has been studied by NMR, UV-Vis and MS spectroscopy. An X-ray crystal structure has been obtained for one of these complexes. The extd. complex, Zn(L) (below), has a distorted octahedral geometry and both ligands are in the meridional configuration. Selectivity in extn. is obsd.

L104 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1999:176370 HCAPLUS
 DOCUMENT NUMBER: 130:266974

TITLE: Intellectualization of metal complex catalysis
 AUTHOR(S): Tsuji, Yasushi
 CORPORATE SOURCE: Catalyst Chemistry Research Center, Hokkaido University, Japan
 SOURCE: Kagaku (Kyoto) (1999), 54(3), 68-69
 CODEN: KAKYAU; ISSN: 0451-1964
 PUBLISHER: Kagaku Dojin
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: Japanese

AB A review with 8 refs. describes recent reports on high functionalization of catalyst systems in **metal** complex-catalyzed reactions by mol. engineering. In an application of **combinatorial** chem., certain dyes, 4-(ferrocenyliminomethyl or 2-ferrocenylvinyl)-1-(4-tert-butyl-benzyl)pyridinium tetraphenylborate, are used for assaying the catalyst activity of a **combinatorial** libraries of catalysts for hydrosilylation. An optically active phosphine **ligand** attached to a dendrimer structure is used as a catalyst precursor in combination with [Ph(COD)₂]BF₄ in asym. hydrogenation of di-Me itaconate to exhibit high selectivity with asym. yield of 98% ee. This catalyst precursor (mol. size .apprx.3 nm) can also be sepd. by nano-filtration membrane. A solvent system having a homogeneous phase at upper crit. temp. and two-phases at the temp. below upper crit. temp. enables the complete sepn. of a catalyst based on the **soly.** difference after the reaction, e.g. hydrogenation of 1-octadecene and 1-dodecene using water-**sol** . poly(N-isopropylacrylamide) (PNIPAM)-Rh and -Pd complex in 90% ethanol-heptane (1:1 mixt., homogeneous phase at 70.degree. and two-phase at 22.degree.) and hydroformylation using HRh(CO){P[CH₂CH₂(CF₂)₅CF₃]₃}₃ in C₆F₁₁CF₃-toluene (1:1 mixt., homogeneous phase at .gtoreq.100.degree. and two-phases at <100.degree.).

L104 ANSWER 28 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:8002 HCAPLUS

DOCUMENT NUMBER: 130:60216

TITLE: Delivery and scavenging agents for combinatorial synthesis of organometallic compds.

INVENTOR(S): Boussie, Thomas; Hall, Keith A.; Lapointe, Anne M.; Murphy, Vince; Powers, Timothy; Van Beek, Johannes A. M.

PATENT ASSIGNEE(S): Symyx Technologies, USA

SOURCE: PCT Int. Appl., 106 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 20

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9856796	A1	19981217	WO 1998-US10863	19980528
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 6030917	A	20000229	US 1997-898715	19970722
AU 9878016	A1	19981230	AU 1998-78016	19980528
EP 920436	A1	19990609	EP 1998-926102	19980528
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
US 2001033375	A1	20011025	US 2001-874758	20010605
US 2002197731	A1	20021226	US 2002-183306	20020625
PRIORITY APPLN. INFO.:			US 1997-48987P	P 19970609
			US 1997-898715	A 19970722
			US 1997-989739	A 19971212
			US 1998-25841	A 19980219
			US 1996-16102P	P 19960723

AB Delivery and scavenging agents are provided for the combinatorial synthesis of organometallic comps. in a soln. or suspension, where the agents are constructed from a solid support allowing for easy sepn. of unreacted reagents or unwanted materials from a synthesis reaction. Use of these solid supported agents also allows otherwise unfavorable reactions to be driven to completion using large excesses of reactants and minimizes the chances for competing bimol. side reactions in parallel or rapid serial synthesis. Thus, LNBz2 (L = 1,4-dimethyl-2,3-diazabutadiene) was prepd. in 95% yield by reacting L with polystyrene-graft-poly(ethylene glycol) supported NIBz2. REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L104 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:197471 HCAPLUS

DOCUMENT NUMBER: 128:265374

TITLE: Combinatorial approach for generating novel

INVENTOR(S): Jacobsen, Eric N.; Francis, Matthew B.; Finney,

Nathaniel S.

PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA;

Jacobsen, Eric N.; Francis, Matthew B.; Finney,

SOURCE:

PCT Int. Appl., 89 pp.

CODEN: PIXXD2

Patent

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 9812156 A1 19980326 WO 1997-US16740 19970919

AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,

DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KP, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, UA, UG, US, UZ,

VN, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,

GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,

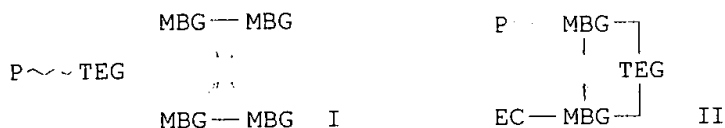
GN, ML, MR, NE, SN, TD, TG

AU 9745851 A1 19980414 AU 1997-45851 19970919

US 6489093 B1 20021203 US 1997-933714 19970919

PRIORITY APPLN. INFO.: US 1996-26432P P 19960920

WO 1997-US16740 W 19970919



AB The present invention provides methods and compns., i.e. synthetic **libraries** of binding moieties, for identifying compds. which bind to a **metal** atom or to non-**metal** ions, e.g., cationic or anionic mols. Thus, combinatorial **libraries**, e.g. I and II (P = TentaGel S amino resin polymer support; TEG = turn element group, i.e. di- or trifunctional cyclic amino alc. or cyclic amino acid; MBG = **metal** binding group, i.e. amino acid residue; EC = end capping group, i.e. acyl residue) were prepd. and examd. for their ability to coordinate transition **metal** ions. Thus, a 12,000 member combinatorial **library** P-NHCO(CH₂)₅NH-A-B-C-D [III; P-NH₂ = TentaGel S amino resin polymer; A (position 1) = L- or D-Asp(OCMe₃), L- or D-Ser(CMe₃), L- or D-Met, L- or D-Tyr(CMe₃), L- or D-phenylglycine, His(CPh₃), Gly; C (position 2) = L-Asp(OCMe₃), L-Ser(CMe₃), L-Tyr(CMe₃), L-His(CPh₃), L-Met, L-Trp, Gly, L-phenylglycine, 4-piperidinecarboxylic acid; B (turn element) = 1-amino-2-carboxyloxycyclopentane stereoisomers, 1-amino-2-carboxyloxycyclohexane stereoisomers, 1-amino-2-carboxyloxylindane stereoisomers, L-Pro, D-pipecolinic acid; D (end cap) = RCO, tosyl, pyroglutamic acid, R = Me, CMe₃, 1-naphthyl, CH₂CO₂Me, 2-pyridyl, 3,4-methylenedioxypheyl, PhNH] was prepd. using std. solid-phase peptide coupling techniques. **Library** III was tested for Ni²⁺ binding affinity by treatment with 2.5 .times. 10⁻⁴ M Ni(OAc)₂ in MeOH followed by soln. of dimethylglyoxime in MeOH to form a reddish-pink ppt. trapped in the polymer matrix of about 6 of the 24,000 beads. Tag photolysis and anal. allowed the identification of the individual nickel-binding **library** members.

L104 ANSWER 30 OF 31 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:87740 HCAPLUS

DOCUMENT NUMBER: 128:141181

TITLE: **Combinatorial** synthesis and analysis of organometallic compounds and olefin polymerization catalysts

INVENTOR(S): Weinberg, W. Henry; McFarland, Eric; Goldwasser, Isy; Boussie, Thomas; Turner, Howard; Van Beek, Johannes A. M.; Murphy, Vince; Powers, Timothy; et al.

PATENT ASSIGNEE(S): Symyx Technologies, USA; Weinberg, W. Henry; McFarland, Eric; Goldwasser, Isy; Boussie, Thomas; Turner, Howard; Van Beek, Johannes A. M.; Murphy, Vince; Powers, Timothy

SOURCE: PCT Int. Appl., 106 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 20

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9803521	A1	19980129	WO 1997-US13312	19970722
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,				

LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MM, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 GB, GR, IE, IT, LU, MC, NL, PT, SE, SF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

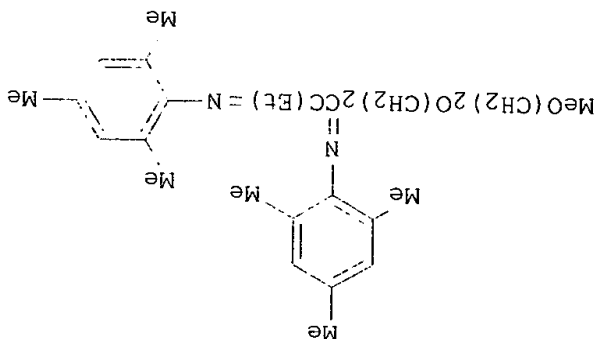
AU 9737418 A1 19980210 AU 1997-37418 19970722
 EP 923590 A1 19990623 EP 1997-934335 19970722
 EP 923590 B1 20011010

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, IE, FI
 JP 11514012 T2 19991130 JP 1998-507246 19970722
 AT 206714 E 20011015 AT 1997-934335 19970722
 ES 2162682 T3 20020101 ES 1997-934335 19970722
 ES 2166208 T3 20020401 ES 1999-203630 19970722
 ES 2166209 T3 20020401 ES 1999-203631 19970722
 JP 2002241319 A2 20020828 JP 2001-378679 19970722
 JP 2002241387 A2 20020828 JP 2001-378680 19970722
 JP 2002241388 A2 20020828 JP 2001-378681 19970722
 US 2001033375 A1 20011025 US 2001-874758 20010605
 US 2002197731 A1 20021226

PRIORITY APPLN. INFO.:

US 1996-16102P P 19960723
 US 1996-28106P P 19961009
 US 1996-29255P P 19961025
 US 1997-35366P P 19970110
 US 1996-28105P P 19961009
 US 1997-35202P P 19970110
 US 1997-48987P P 19970609
 US 1997-50949P P 19970613
 JP 1998-507246 A3 19970722
 US 1997-898715 A2 19970722
 WO 1997-US13312 W 19970722
 US 1997-946135 A1 19971007
 US 1997-947085 A1 19971008
 US 1999-474344 A3 19991229

GI



I

AB Libraries of unsupported and supported metal-ligand compds., useful for homogeneous and heterogeneous olefin synthesis, catalysts, resp., are manufd. by combinatorial synthesis. Thus, complexation of diamine I with (DME)NiBr₂ in 24 h in CH₂Cl₂ gave a product, and polymn. of ethylene gas 2.25 h in PhMe in the presence of MAO gave 1.38 g polymer.

L104 ANSWER 31 OF 31 WPIX (C) 2003 THOMSON DERWENT
 ACCESSION NUMBER: 1993-370180 [47] WPIX
 DOC. NO. CPI: C1993-164203
 TITLE: Crosslinkable polyester isocyanate compsns. for injection
 moulding - low cost, rapid prodn. of composite material
 components with low shrinkage, high mechanical properties
 and improved flame retardancy.
 DERWENT CLASS: A25 E19
 INVENTOR(S): ADEMBRI, A; CREDALI, L; DI, DRUSCO G
 PATENT ASSIGNEE(S): (SIRI-N) SIR IND SPA; (SAAR-N) SAAR IND SRL
 COUNTRY COUNT: 3
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 570735	A2	19931124	(199347)*	EN	14
JP 06157707	A	19940607	(199427)		13
EP 570735	A3	19940316	(199520)		
IT 1255279	B	19951026	(199617)		
US 5596021	A	19970121	(199710)		9

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 570735	A2	EP 1993-106880	19930428
JP 06157707	A	JP 1993-111800	19930513
EP 570735	A3	EP 1993-106880	19930428
IT 1255279	B	IT 1992-MI1223	19920520
US 5596021	A Cont of	US 1993-63929	19930518
		US 1994-306526	19940915

PRIORITY APPLN. INFO: IT 1992-MI1223 19920520

AN 1993-370180 [47] WPIX

AB EP 570735 A UPAB: 19940111

Crosslinkable **polymeric** compsn. comprises (A) 90-20 wt.% isocyanate having functionality 2-5 and viscosity (25 deg.C) 20-10,000 cP; (B) 10-80 wt.% unsatd. polyeser resin and/or vinyl ester resin, contg. vinylic or vinylidenic type unsaturations mixed with 10-60 wt.% vinylic or divinyllic monomer; (C) 0.1-4 wt.% free-radical **polymerisation** initiator stable below 70 deg.C; (D) a promoter for the decomposition of (C) below 70 deg.C comprising 0.005-0.5 wt.% (calcd. on the metal) **transition metal** salt, pref. Co(II) or Mn(II) **soluble** in (A)+(B) and/or 0.05-1 wt.% N,N-dialkyl substd. aromatic amine; (E) 0.01-1 wt.% catalyst for the trimerisation of (A); and (F) 0-10 wt.% epoxy modifier capable of reacting with (A) in the presence of (E); (wt.% relative to wt. of (A)+(B)).

Also claimed are (1) Prepn. of the above compsn. comprising adding a mixt. of (B), (D) and (E) to a mixt. of (A), (C) and opt. (F); and (2) Use of the above compsn. in preparing composite materials by compression moulding, RTM, RIM, R-RIM and S-RIM technologies.

USE/ADVANTAGE - The compsn. comprises 2 highly stable blends mixed upon injection into a mould and capable of rapid reaction after an adjustable induction period, allowing **high throughput** prodn. of composite material components, e.g. automotive parts. The prods. exhibit low shrinkage during crosslinking, high mechanical properties and better self-extinguishing and flame retardant characteristics than traditional polyester systems. The materials are cheaper and more easily

processed than polyurethane systems.

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ABEQ US 5596021 A UPAB: 19970307

Crosslinkable polymeric composition comprising the following components: (A) an isocyanate having a functionality of at least 2 and not higher than 5, and a viscosity at 25 deg. C. between 20 and 10,000 cP; (B) an unsaturated polyester resin terminated with hydroxy groups and/or a vinyl ester resin terminated with hydroxy groups, containing vinylidene unsaturations, in a mixture with 10-60% by weight of a vinylidene unsaturations, wherein the (B) component is present in an amount of from 10 to 80% of the total weight of (A)+(B), and the resin contains hydroxy groups in an amount such that the resin has a terminal hydroxy number that is higher than 0 and up to 100 mg of KOH per gram of resin; (C) a free-radical polymerization initiator stable at temperature lower than 70 deg. C., in amounts between 0.1 and 4% by weight, based on the total weight of (A)+(B); (D) a promoter for the decomposition of the (C) initiator at temperatures lower than 70 deg. C., comprising: (i) a salt of a transition metal, in an amount soluble in the mixture constituted by (A) and (B), in an amount between 0.005 and 0.5% by weight, calculated on the metal, relative to the total weight of (A)+(B), or (ii) an N,N-dialkyl substituted aromatic amine in an amount of from 0.05 to 1% by weight, or (iii) a mixture of (i) and (ii); and (E) a catalyst for the trimerization of (A) isocyanate in an amount between 0.01 and 4% by weight, relative to the total weight of (A)+(B); wherein the (B) component optionally comprises a polyol, the polyol being present in an amount of from 0 to 3% by weight of the unsaturated polyester resin and/or vinyl ester resin, the polyol having a minimum functionality of 2 and a maximum functionality of 7, and a minimum molecular weight of 200 and a maximum molecular weight of 10,000; wherein the total amount of polyol in the composition does not exceed 3% by weight of the unsaturated polyester resin and/or vinyl ester resin; and wherein the molar ratio of the isocyanic groups of the (A) component to the total hydroxy groups in the crosslinkable polymeric composition is higher than 1.5.

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